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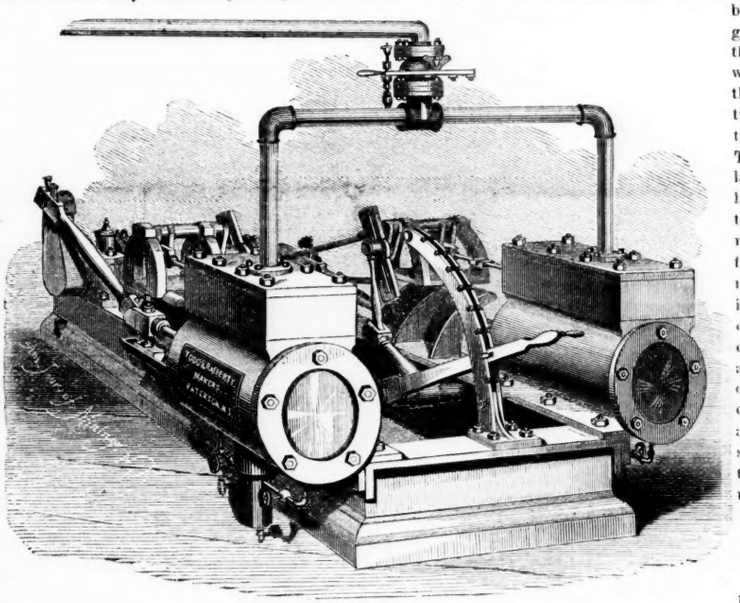
A GOOD DOUBLE HOISTING ENGINE.

Our readers will recollect that we last week gave a few facts relative to the extensive machine works of Messrs Todd & Rafferty, at Patterson, N. J., illustrating their horizontal steam engine at the same time. In this week we give an excellent representation of their Double Hoisting Engine, used principally in iron mines for hoisting ores, etc. It is made with a link motion for reversing—and is peculiar to the style of work turned out by this establishment—neat, durable and simple in all its working parts. The manufacturers state that the different iron manufactures in the Lehigh Valley have found them so vastly superior, that scarcely any others are known in that locality. If their merit has thus been proven in one locality, why should they not be in others? We would suggest that mine owners and all needing a Hoisting Engine examine into the merits of this machine.



TODD & RAFFERTY'S DOUBLE HOISTING ENGINE.

An Indigo Mine in Colorado.

Some of our readers, says the Central City (Col.) *Register*, will remember an item which was published exclusively, to the effect that an indigo mine had been discovered near San Francisco. Just such another may be seen any day on James Creek. For amile or more along the banks of the stream fluor spar in the impure form of Ratoffkite has been deposited, perhaps by an overflow of lodes on the hill sides above, and the whole mass is of an indigo blue color, is quite fine-grained and very closely resembles indigo. It does not dissolve, however, so readily in water. Into the beds of this mineral, perhaps forty shafts have been sunken, each person supposing that he had struck a silver mine. Most miners there call it ruby silver ore, though it probably does not contain a trace of that metal. The striking of these indigo mines will prove a disappointment to many a hard-working miner. These immense deposits of fluor spar may yet become very valuable, as fluorine will dissolve quartz and render it liquid.

A British Oil Distilling Invention.

A patent has recently been granted in England to a Mr. Newton for improvements in the process of an apparatus for distilling petroleum and other mineral oils. In the ordinary process of distilling petroleum it is necessary, in order to raise the vapor and overcome the pressure of the atmosphere, to bring the heat to a comparatively high temperature. the effect being usually accomplished by the direct application of fire to the retort or still. The crude oil is also deposited into the still in charges, it being generally impracticable to apply a continuous feed to a retort for petroleum where so high a degree of heat is used as is necessary to raise the vapor against atmospheric pressure. In conducting the operation in this manner not only is the material to be distilled liable to burn on the sides of the retort, but a large amount of gas is evolved by this excess of heat. and imparts to the oils offensive odors, and increases its liability to explode; and, furthermore, the process is not complete without deodorisation by the employment of acids and alkalies after the products have passed from the still. The residum is also burned and greatly injured by the same excess of heat. To obviate these difficulties is the object of the present invention. By removing the pressure of the atmosphere and applying the heat by steam (preferably superheated) all that is desired to evaporate of the lighter hydrocarbon oils is effected without incorporating with them deleterious gases or offensive odors; and, also, the residuum is reduced to a heavy gravity without burning or otherwise injuring the oleaginous and valuable properties of the same.—*London Mechanic's Magazine.*

New and Cheap Process of Making Wrought Iron.

Mr. Chas. M. Dupuy has invented a process for reducing iron ore, which he says will save seventy-five per cent. in fuel, almost the whole of the metal in the ore, and dispense with the skilled and exhausting labor of the reverberatory furnace. He first frees the ore as much as possible from earthy impurities by washing it when in a crushed state. He then places it along with pulverized charcoal in thin sheet iron canisters, in quantities sufficient, when reduced, to form a mass of iron of the usual weight of a puddle ball. An ordinary sand-bottom iron heating furnace is brought up to a reducing heat, and with a thick clear fire the canisters are introduced. The furnace is carefully maintained at a reducing heat in the usual manner by small additions to the fire from time to time, as required, and by a careful exclusion of the atmosphere. Very little blast and a suppressed draft are used, so as to furnish a reducing heat without cutting the canister. The operation resembles very closely the process of annealing sheet iron. Soon after introduction the canister is annealed and toughened, assuming a polished appearance. It should be the aim to keep the heat in this condition until the metal is thoroughly reduced; should it be increased the canisters may be prematurely destroyed. De oxidization commences immediately on the introduction of the ore, as proved by the blazing of carbonic oxide from vents made for the purpose, and, by occasionaliy rolling and, at the proper time, compressing the canister, it continues without intermission until reduction is completed. The heat should then be raised to weld or paste together the particles of iron, and then canister and contents being withdrawn are welded, in any of the ways puddle ball is usually treated. Very little manipulation is required in the furnace. The whole operation need not last longer than from four to six hours. A few canisters may be tested at trifling expense at any rolling-mill. It is believed that from three to five tons of iron may with equal facility be made in the same time in one furnace of suitable capacity. The extra expense is the cost of sheet iron, amounting from twelve to fifteen dollars a ton, and the cost of crushing the ore and charcoal, allowing for which there would still, he says, be a saving of thirty per cent in the cost of the manufacture of iron.

Peat in Italy.

It is estimated that the Lombard provinces in Italy contain 1005 hectars of peat deposit, calculated to be capable of yielding 40,000,000 quintals of dried peat. The greater part of this is so situated as to be within available reach of the iron-works. The whole quantity of peat extracted from these deposits of late years has been about 500,000 quintals a year. The peat of the great peat bed on the Lago d'Iseo, contains, of carbon, 29 parts; of volatile substance, 61 parts; and of earthy materials 10 parts, equal to 100. This peat, cut and dried, and put on board a boat on the Lago d'Iseo, may be had for one franc per quintal.

Antediluvian Remains in New York—Extraordinary Discoveries at Cohoes.

Immense excavations have been going on for the foundation of a new factory, situated on the base of the elevated ground overlooking Cohoes, and verging toward the point or bluff around which those majestic Falls of Cohoes are seen to such perfection. To make the position intelligible to our readers, the ground where the men have been blasting to get sufficiently deep is more that seventy feet higher than the falls, which are about two hundred

yards distant. As may be imagined, the edge of the river is all composed of a solid blue rock, requiring herculean efforts, even with gunpowder, to dislodge it.

The first symptoms of anything unusual occurred was in consequence of one of the tools almost disappearing, as it were, between the rocks after they got down some thirty feet. At this time they were boring to blast in asemi-circular shape of solid rock. The cause of sinking was soon found to be a patch of bog in which not only the tracks of trees were perfect, as if only just cut down, but actually green leaves can be picked out apparently quite fresh. The peat itself has the appearance of compressed horse dung, and retains a strong gaseous smell. At the time of this discovery a blast had just been fired, and the depth at which the blast was sprung could not be less than sixty feet. It brought to light an immense lower jaw of one of the antediluvian animals. It is petrified, having in one jaw six immense teeth, on the other side only two. When this curiosity is examined by our savans, it may become a question whether or not he was in his infancy, not having at the time of his decease cut his eye tooth; however, the teeth are now simply petrified agate. Whether this arises from the petrification, or, perhaps, this animal's age, as naturalists tell us they used to live for centuries, will, at least for the present, remain an undecided question. There is also a joint of one of the legs.

Upon the springing of the next blast which carried the workmen some twenty feet lower down in their operations, and the concussion of which displaced some hundred and fifty tons of stone, it brought to view two circular holes, one about three feet diameter and fifteen feet deep. The workmen, naturally curiously inclined, tried to see if anything could be found, and sure enough it was an open cesame to them, for several live eels were taken out, but which, from the gluttonous propensities of men who do hard work, were soon after made a meal of and declared to be somewhat old. The other hole is one foot wide, and contains simply pebbles.

These two natural fissures in the rock may not appear to an ordinary person at all wonderful, but on reflection it is most astonishing, there being no inlet or outlet, how the eels and the stones should get there, as well as these apertures containing water, so far above the elevation of the falls.

The Iron Works of Chicago.

The Chicago *Republican* devotes three columns to the history and statistics of the iron business in that city. A contemporary condenses from this account, some interesting facts. There are no means in Chicago for the reduction of iron ores. The metal comes to the city in the form of pigs or bars. The principal source of supply is at Marquette, on Lake Superior. The celebrated Iron Mountain at this place, was discovered in 1857; but was not worked, with any degree of thoroughness till the opening of the St. Mary's Falls Ship Canal in 1855. The iron found here is said to be the best in the world, and the supply is, apparently inexhausible. Iron is also found in Harden county, Illinois. The receipts and shipments at Chicago, as given by the *Republican*, are simply stupendous. The lake receipts alone amounted to last year to 17,690 tons of pig-iron, 2,153 tons of railroad iron, 30.742 bars, besides vast quantities of scraps and manufactured iron, one on the north branch of the Chicago river, the other on the south. These mills have a yearly business of $2,500,000. They are almost exclusively engaged in rolling railroad Iron. The Chicago Rolling Mill has a capital of $615,000, employs at present 300 men, and consumes about 5,000 tons of pig-iron annually. The Union Rolling Mill has a working capital of $300,000, employs about 325 men, and works about 500 tons of railroad iron per week. The *Republican* gives the statistics of thirty iron manufactories, doing a yearly business of from $25,000 to $500,000.

True Gold.

Some love the glow of outward show,
  Some love mere wealth and try to win it;
The house to me may lowly be,
  If I but like the people in it.
What's all the gold that glitters cold,
  When linked to hard or haughty feeling?
Whate'er we're told, the noble gold
  Is truth of heart and manly dealing.
Then let them seek, whose minds are weak,
  Mere fashion's smile, and try to win it;
The house to me may lowly be,
  If I but like the people in it.

A lowly roof may give us proof
  That lowly flowers are often fairest;
And trees whose bark is hard and dark
  May yield us fruit and bloom the rarest.
There's worth as sure 'neath garments poor
  As o'er adorned a loftier station;
And minds as just as those we trust,
  Whose claim is but of wealth's creation.
Then let them seek, whose minds are weak,
  Mere fashion's smile and try to win it;
The house to me may lowly be,
  If I but like the people in it.

Mining Summary.

Colorado.

Writing from Oro City, whither he had come from Breckinridge, Bayard Taylor says: We now turned to the right, in order to visit Montgomery, which lies on the very head-waters of the South Platte, at the foot of Mount Lincoln, whose rocky sides are veined with the richest ores. In less than a mile after leaving the top of the pass, we saw the neat little town lying before us, and could detect the signs of mining all around and above it. I had a surfeit of mining plans and prospects in Central City, and will only say that the people of Montgomery are just as sanguine as those of the former place and their ores, so far as I could judge from specimens, are just as rich and abundant. It would interest those who own stock in the North Star, the Pioneer, and other companies, if I should minutely describe their separate lodes; but most of my readers, I presume, will be satisfied with the general statement that the wealth of Colorado has not been, and cannot easily be, exaggerated..... Riding from Bucksin Joe to Oro City, evidence of the richness of the locality met us at the outset. We rode along the borders of a narrow gulch—now all stones and gravel—out of which $500,000 were washed in 1860. Thence, two miles over a rough, timbered mountain brought us to Mosquito, another mining village of a hundred inhabitants, at the mouth of a narrow, winding gorge, issuing out of snow-streaked heights to the southward..... It was impossible to mount our horses until a certain point, nearly 2,000 feet below us, had been reached. There was no snow on the southern slope; but a zigzag, headlong path over bare stones (among which Mr. Byers saw constant indications of gold) for two miles or more, and we reached the bottom with trembling knees and dripping faces. After this the path gradually fell into one of the lateral glens which debouch into the Arkansas Valley, and we pushed merrily on through pine groves and over green meadows, stung by the gad-fly of hunger. Mr. Willet insisted on taking us out of the direct path to see the evidences of gold-washing in California Gulch. We objected, preferring to see a dinner; but he was our guide, and he had his way. The obdurate man made us ride along a mile of hideous gravel-pits and piles of dirt, smacking his lips over the hundreds of thousands of dollars which had been dug out of them, while every one of us was suffering indescribable pangs. What was it to us that men are even now washing out $100 a day. ..... A letter to the *Times* from Denver City, Sept. 20th, says: On our way down the valley of North Clear creek, we passed through the town of Black Hawk, about two miles below Central City, where we stopped an hour to examine two of the largest quartz mills now in operation in this valley. One, the Black Hawk mill, which adheres to the old method of stamping and washing the ores from the quartz, and the other, the Lyons mills, in which the new process of decomposing the quartz and separating the ores by the action of heat is being carried on. This matter of separating the precious metal from the quartz is one of vast importance to the mining interests of Colorado, and he who shall succeed first in economically and successfully accomplishing the object will be entitled to the lasting gratitude of "all the world and the rest of mankind." The exact and proper process seems yet to be hidden in the womb of the future, and many an alchemist is now racking his brain and experimenting in his crucible over his midnight lamp, in the hope of first discovering this great secret in chemical science, which the Almighty has, for some great and wise purpose, thus far withheld from mankind..... The Denver *News*, Oct. 31st, says: S. R. Huyett and his brother have about closed a sale of mining property on South Clear creek to a company in Chicago, for $100,000. The company will be called the Chicago & Clear creek mining company..... The reports from Ward mining district in that county are very flattering, and promise great things for the future. The Ni-Wot mining company may be justly considered the pioneers of the district, they having built the first quartz-mill of any pretensions. Their works commenced running in July last, and have been successful almost beyond parallel. They are now taking out twelve hundred dollars in gold every day. The Columbian lode, upon which the Ni-Wot mill is situated, has been discovered lately to have a crevice of solid ore sixty-two feet in width. The crevice on first excavations was twelve feet wide for about fifty deep down, when the miners came upon and removed a wedge rock, which increased the width to the figures given. The ore yields two hundred and eighty dollars to the cord, is soft quartz containing free gold, and easily saved by the stamp process. The immense width of the ore vein promises an amount of wealth unequaled in quartz mining. There is quite an excitement over recent discoveries in James creek mining district. About 250 men are working there. A great number of lodes of the finest appearance, as to quality of ores, have been discovered. Miners and others who have been over the country, confidently say that it is the biggest country in the mountains..... The Denver *Gazette*, Oct. 24th, says: Whitney and Whiting have purchased 800 feet on the Copper Lode in Montezuma from Duffield and Cooper, for the sum of $10,000. The same gentlemen have also made an agreement with O'Donald and Donelly to purchase four lodes in the neighborhood of Breckenridge for the sum of $20,000. The most valuable of these lodes is the Bunker Hill, which has over four feet of galena at a depth of six or seven feet from the surface. The Cooper lode in Montezuma district has a crevice of ore from two to three feet wide on the surface, and has been traced for over 1000 feet up the mountain. ..... The Beverley smelting works, in Nevada Gulch, have a capacity for treating four tons a day, and are unable to undertake half the work offered by miners in the neighborhood. It has been fully demonstrated that all the lodes opened in the vicinity will pay well by the smelting process. Numerous companies have had lots of 100 lbs., of average ore, smelted, and the returns, in many instances, have been astonishing. A lot of 100 lbs. of ore from the King Lode was smelted for Col. Lewis, a few days back, and gave 65 lbs. of metal, for which he refused an offer of one dollar per pound. Such results fully prove the great wealth of the mines, and are very significant of what the mountains are going to turn out when proper smelting facilities are extended to the owners of the thousand and one lodes which have latterly been entirely neglected. Mr. Beverley intends making large additions to his works next spring. Up to the present, the ores treated have been broken and dressed by hand. The expense of building and putting in operation a furnace of the same capacity as the above would be from $2,500 to $3,000, and it is surprising that more of them have not been put up in Gilpin county. The necessary machinery for crushing, dressing and roasting ores is the most costly item in starting smelting works on a permanent scale; but Mr. Beverley has proven that a small furnace, where no such machinery is used, will pay well on average ores. There is, therefore, no further occasion for miners to wait for mills and desulphurizing processes. If they wish to get the precious metals from their lodes, let them turn to and build small smelting furnaces. One of the beauties of this process is, that the copper, antimony, and other base metals, are saved, and can be reduced to matter which, as soon as the railroad is completed to Denver, can be shipped East or to Europe, and realize good profits..... The Central City *Register*, Oct. 30th, says: An average assay of the Franklin Lode, situated in the head of Gillson's Gulch, is upwards of fifty-five dollars per ton in silver. Some four or five assays were made from various places in the lode, and this was the average result. The crevice is four and a half feet wide..... The shipment of gold for the week ending Tuesday, Oct. 23d, was as follows: Warren, Hussey & Co., 275 oz.; Geo. T. Clarke & Co., 260 oz.; R. M. National Bank, 135 oz. Total. 970 oz., valued at $14,000—a decrease of $6,000 from the previous week. It should be remembered, however, that some of the companies which shipped during September have not shipped during the present month, reserving their gold until the end of the month..... In his last letter, Mr. Byers says that Tarryall has shipped from 10 to 15 pounds of gold per week, during the whole season. Probably as much more goes by private hands, or is retained by the miners..... Mr. Hollister, in a recent letter to his Black Hawk *Journal*, speaks of a new mining district in the Arkansaw as follows: Commencing at Cottonwood, a new mining district has been organized this season, from its forks upward, called Westphalian, in which about thirty lodes have been recorded. The ore looks like that found in the Range—coarse iron pyrites and sulphurets. Still below this, on bars in the Arkansas, hand-rockers have been used to a limited extent for a long time, yielding from $2 50 to $50 a day—much more often the first than the last. On Pine creek there is a mining district, but it is not much developed. On Clear creek, seven or eight miles up, about thirty lodes have been discovered. No work of consequence has been done on them. He also says that the Gaff mining company, at Cash creek, have not more than paid expenses this last season, the ground being poor, and boulders from a side gulch being troublesome. The Ritche diggings, near Cash creek, have paid $10 per day to the man.

Nevada.

The Comstock.—The San Francisco *Mercantile Gazette*, of Oct. 18, says: Sales of mining shares since our last issue have taken a wider range than for some time past, the stocks of some twenty different companies having been dealt in. Both the Hale & Norcross and Savage companies have increased their dividends $25 per foot for the present month, respectively declaring $100 and $75. A healthier period in mining stocks seems to be approaching, and we have encouraging information from various quarters..... The aggregate receipts of bullion from the Hale & Norcross, Yellow Jacket, Savage, Gould & Curry, Crown Point, Imperial, Chollar-Potosi and Empire Mill and Mining companies, for the months of July, August and September, amounted to $2,930,282 58, produced from 86,597 tons of ore, saving an average of $33 72 per ton..... Hale & Norcross continues to keep out on the market, being still held in firm hands. We may nominally quote it at $1,715. Deducting the dividend of $100 per foot ($40,000) paid on the 15th inst., we understand that a surplus of more than $100,000 remains at the credit of the company. The average yield of bullion per ton of ore has been considerably larger for some time than any of the other companies

located on the Comstock vein.....Savage is commanding advanced figures from our last quotations, rapidly running up to $1,200, then selling at $1,210, and closing yesterday at $1,230, buyer 30. Latterly quite an improvement in the ore has been noticed—second class averaging $58, and third class $90. During the week ending October 6, 1,234 tons of ore were mined, and the profits during the same period are estimated at $21,240. During September, 3,500 tons of ore were reduced, giving an average of more than $41 per ton.....Yellow Jacket ruled at $720 and $740, buyer 30, at the close of last week, opened at $660, ex-dividend early in this week, and sold yesterday at $587 50, seller 30. During the month of September, 8,431 tons of ore were reduced, yielding $35 50 in bullion to the ton. Deducting the dividend of $50 per foot paid on the 15th of the present month, a balance of some $120,000 remains on hand, according to the statements of the company.....Crown Point has advanced some $75 from previous quotations, selling early in the week at $1,000*a*1,015, buyer 30. During the week ending October 6, 614 tons of ore were extracted from the mine. The lower level is now free from water. The east body, in the 400-feet station, it is said, discloses a lode of good ore some six feet in width. The average yield of ore for the month of September was $38 48 per ton.....Gould & Curry has declined very materially from our last figures, receding from $555 to $500, buyer 30, then dropping to $475*a*450, and closing yesterday at $400. We have nothing of a favorable nature to communicate at this time in regard to the condition of the company's mine .....Ophir fell from $185 to $150*a*140, then dropped to $105, and closed yesterday at $104. An assessment of $6 per share, or $72 per foot, was levied on the 16th inst., payable on the 19th. It is said that nearly $1,000,000 in bullion have been extracted from this mine within the past year and a half, and that the whole amount has been expended on the mine and in paying numerous officials. During this period not a cent has been disbursed to stockholders in the shape of dividends .....Chollar-Potosi sold at $110*a*112 50, receded to $107, and closed at $108, buyer 30. We have nothing encouraging from this mine .....Imperial has changed very little from our previous quotations, selling at $76, then at $82, buyer $30, and closed yesterday at $77. During the month of September, 3,384 tons of ore were reduced, yielding $23 20 in bullion to the ton.....Empire Mill and Mining company sold at $75 early in the week, advanced to $76 50, and at the close we quote it at $78. On the 10th inst., a dividend of $6 was paid. It is said that the future prospects of this company are much more encouraging than for some time past.....Belcher opened at $78*a*75, declined to $67 50, seller 3, then dropped to $50, and closed at $50, seller 3. Confidence receded from $50 to $45, and at the close ruled at $45.....Overman sold within a range of $11 32*a*4 50, closing at $5 75, seller 3; bullion at $2 50*a*1 75, closing yesterday at $2 50; Daney at $1; Sierra Nevada at $1 50.

Lander.—The *Reveille* says: The following is the return of bullion producing mines in Lander county, for the quarter ending 30th September, as compiled from the books of C. O. Barker, County Assessor. It will be observed that in several instances ore was brought here from districts in Nye county for reduction, and they are marked thus: Philadelphia*, Danville†, and Northumberland‡. The average yield per ton, as well as the production of the Savage mine, is lower than the preceding quarters, owing to the fact that they have been opening new levels in the direction of the deposit of richest ore, which they are now extracting, and which will augment the production and average value for the present quarter:

Name of Mine.	Tons.	lbs.	Av. per T.
Great Eastern	412	650	$176 82
Fortuna	23		85 71
North River	39	536	217 56
Troy	2	1,000	83 82
Diamond	1	402	132 57
Blind Ledge	2	1,968	128 64
Semanthe	2	774	276 97
Othello	5	1,135	36 53
Idora	16	1,237	212 62
Highbridge*	17		195 36
Eastern Oregon	1		85 46
Foster	26	1,212	43 87
La Plata	50	882	71 60
Chase & Zent	4	1,000	362 04
Canada	6	1,500	132 90
El Dorado*	2	568	244 58
Magnolia	4	1,171	259 93
Washington	4	88	187 45
Vanderbilt†	2	1,670	105 46
Morgan & Muncey	17	651	107 75
Diana	17	503	180 40
Richey & Hussey‡	7	612	201 75
Detroit‡	4	1,800	116 18
Camargo	30		90 77
Timoke	28	253	167 92
Green & Odor	1	600	178 43
Dover	2	450	161 64
Isabella	19	503	40 13
Harding & Dickman	1	1,233	87 19
Providential	79	1,000	33 04
Cortez Giant	227		66 07
Transylvania*	19	320	161 00
Folsom	5	1,019	166 90
Savage Consolidated, No. 1	160		156 83
" " No. 2	230		74 06

Pahranagat.—A letter to the Gold Hill *News* says that a party of nine men had gone in search of the famous Breyfogle mine, supposed to be in the vicinity of Death Valley. The party is guided by Breyfogle, who has led several companies in that direction within the last few years. That the guide so perseveres in his search is quite good assurance of the faith he himself has in the existence of such ledges as were reported to have been seen by the emigrants whose sad fate gave the name to Death Valley. The vein now sought is said to assay $4,500 in gold, and very little in silver. The field is a very promising one to prospect in aside from the hope of finding the "lost mines," as the riches of Pahranagat, Reville, Silver Peak, Red Mountain, Palmetto and other districts along the southern border have fully proven. The same letter says that Raymond's five stamp mill at Hico Springs is progressing finely, and will start about the first of November.—*Ib.*

Hot Creek.—The same paper also says of several veins belonging to the Chase & Dell company, in Hot Creek district, located by Mr. H. H. Chase soon after the discovery and organization of the district. These ledges are the Potomac, the Richmond, and the Grand Marvel, each location being 1,200 feet in length, and are traceable with most marvellously rich croppings the whole length with slight unimportant exceptions. These ledges vary in width from four to twelve feet, and are represented by those who have examined them as being uniformly rich. We have seen quite large quantities of ore taken from the croppings at the extreme ends and other places along the locations, which gave unmistakable proof of the great wealth. These show horn silver in scales, and also large bodies of it everywhere through the rock. A piece from the Potomac was assayed after removing all the visible horn and native silver, and the assay proved the rock worth $1,521 38 per ton. Such productions are staggering to the belief, particularly when found in such great masses, in so many veins, and extending over so great an extent of country, yet se often are these results repeated, and from many tons which have been brought to the mills of this city for reduction, and producing from $300 to $800 per ton, one is forced to the conclusion, that in the vast, almost unexplored country to the southeast, are richer silver-bearing veins than ever before made known, even exceeding our fabulously rich Toiyabe.

Philadelphia.—During last week 4,300 pounds of ore from the Silver Champion ledge in the Philadelphia District, were reduced at the Keystone mill, with the following extraordinary result: 4,300 pounds of ore yielded two bars of bullion 850 fine, and valued at $1,541 43, being an average of $716 per ton. The pulp assayed $852 43.—*Ib.*

Cortez.—There were received in town to-day from the mill of the Mount Tenabo company, at Cortez, 1,552 ounces of crude bullion.....One ton from the famous Taylor & Passmore, worked for J. R. Murphy, yielded $263 50; and five and a half tons, from the Russell mine, belonging to D. T. Elmore, gave a bar of bullion valued at $850, which is at the rate of $145 45 per ton. The reduction was handsomely done at the Keystone mill.—*Ib.*

Danville.—The same paper speaks of a batch of the ores from the Danville District, with certificates of their assay by J. R. Murphy. The Ponticulas, No. 1 yielded $735 17, and No. 2, from the case wall, $180 64; Silverpolis, $857 70; Vanderbilt, No. 1, $884 39, and No. 2, $570 01. The Ponticulas is fifteen feet wide, the Silveropolis two and a half feet, and the Vanderbilt four feet wide.

Virginia.

Robert W. Hughes, President of the Cumberland Gap Railroad, after a trip of two weeks to the Cumberland Gap, writes from Abingdon, Nov. 4th: The agricultural wealth of Lee county is nothing compared with its mineral wealth. Our road will most probably pass Wallen's Ridge at Lovelady Gap, a distance of fifty miles from Bristol, thence to Cumberland Gap, a distance of about forty-five miles, it will run parellel to a bed of iron ore on one side of the mountain, and a deposit of bituminous coal on the other, for the entire distance; the coal separated from the iron only by the breadth of the mountain, and accessible to it through occasional water gaps that penetrate the range. There are two veins of the iron ore, each two feet six inches thick. The most eligible one for working, lies in a small ridge of knobs which flanks the mountain along its entire south-eastern base, at a distance of half a mile. The vein of iron ore lies near the north-western surface of this small ridge and slopes parellel with that surface; and is covered first by the earth forming the surface, and then by a stratum of limestone several feet thick; thus presenting conditions for mining the most favorable that could exist. Gen. P. C. Johnston, a most studious geologist as you know, says that "this bed of ore differs from any I have met with, in being a perfectly continuous stratum, two and a half feet thick, lying in a small flanking ridge of the Cumberland mountain, called the Poor Valley Ridge, and extending for a distance of forty-five miles known to me." The length of this vein, reaching from Cumberland Gap through Lee into Wise, is known to others for a distance of sixty-five miles. But it is the quality of this ore which gives it peculiar value. It is an argillaceous oxide, free from the sulphuret of iron, and also exempt from other substances that would affect the purity of the metal; and yields a pure and excellent iron, which is neither *coal short* nor *red-short*. The metal has been shipped down the Cumberland river to Nashville, and down the Tennessee river to cities on the Ohio. The manufacturers who have tried it have in every instance pronounced it to be of the first quality; and have made a standing offer of the highest market price demanded by the best quality of iron, for all that would be delivered to them. They state that it is so well adapted by its toughness and purity to car-wheels, that it will bear transportation to New York city for that purpose. I have specimens of the ore from this remarkable vein taken from points twenty miles apart, which seem to be, and which I am sure are, identical in character. I believe that the quality of this ore is as good as any in the Union; and I have no doubt that it is the most extensive deposit of iron ore of the first quality on this continent. I am told that the ore yields between forty and fifty per cent. of pure iron. Its juxtaposition to thick veins of the best quality of coal, gives to these deposits of the two minerals a value incalculable. Immediately opposite Lovelady Gap, where our road will most probably perforate Wallen's Ridge, is what is called Pennington's Gap, which is a passage through Stone Mountain, where a large stream forces itself through the barrier. This stream at once removes the walls of partition which separates the coal from the iron, and furnishes ample water power for any manufacturing purpose. A few miles east of this Gap, is another water passage of Stone Mountain, called Orlinger's Gap, made by another stream; and still east of this, are other water passages, which will likewise supply the twofold purpose of opening the way for bringing the coal and iron together, and of furnishing the water-power needful for forges. You are aware that Stone Mountain is the geological extension of Cumberland Mountain. The latter forks opposite Lee Courthouse, one branch continuing to form the boundary between Virginia and Kentucky; the other branch called Stone Mountain shooting out into Virginia, through Lee and Wise counties; having on its north-western side thick veins of the best bituminous and cannel coal; the geological characteristics of this Stone Mountain being the same as those of the Cumberland Mountain west of the point of bifurcation. I send you by express specimens of the iron ore, and of the bituminous and cannel coals; and also some coke made by coking the bituminous coal. You see, therefore, that the Virginia and Kentucky railroad will not only form part of a continental thoroughfare between the basin of the Mississippi and the seaboard; but will also lie for forty-five miles abreast, of one of the most extensive and valuable beds of iron ore in the world. A branch road may be made northwest-ward from Lovelady Gap along these beds of iron and coal, as far into Wise county as may be desirable. This railroad will also be a *coal road*, which is one of the profitable attributes of a railroad. Its adaptation with reference to coal is exhibited by the following facts. The cost in Pennsylvania of mining coal and delivering it to railroads, (to the main stems of the railroads from their lateral branches), is found to be one dollar and seventy cents per ton. The charge for transporting coal per ton per mile on the several coal roads in the United States is as follows:

	cents
Baltimore and Ohio Railroad	1.32
Pennsylvania Central	1.33
Reading Railroad	1.50
Nashville and Chattanooga	1.56
Average	1.44

These are the *charges* of the roads, and they average, say one and a half cents per ton per mile. The *cost* of transportation is not of course so great; on the Reading railroad, for instance, it ss stated to be little less than half a cent per ton per mile. Assuming, therefore, that the charge for transporting coal on the Virginia and Kentucky railroad, when the business shall have been thoroughly organized, will be one and a half cents per ton per mile; and supposing the distance from Bristol to Pennington's Gap to be sixty miles (which is several miles in excess of the actual distance), the charge for delivering coal at Bristol per ton will be:

For mining and loading	$1 70
For railroad transportation	90
Total in Bristol	$2 60

The average charge for delivering in Lynchburg will be:

For mining and loading	$1 70
For railroad freight 264 miles	3 96
Total	$5 66

These charges will be increased, first by the royalty payable to the owners of the coal beds; and second, by the commissions or profits due to the

dealers in coal. My firm opinion is, that the superior quality of the coal from Stone Mountain, its purity and excellence will enable it to supersede all the coals now in use in Lynchburg, and along the line of the Virginia and Tennessee railroad..... A correspondent writes from Wythe county to the Lynchburg *News*: "Rich in minerals and with a kindly yielding soil, this section only lacks labor and enterprise to make it a great country, and most desirable for residence."

California.

Richard Ogden, well known to most Californians, writes from San Francisco the following lively mining matter: The quartz mines are doing well and are sending down gold freely. Grass Valley still takes the lead, and the mines there are doing well. The celebrated Hayward mine is growing richer, and its owners are proportionately so. The ore increases in value as they go down in the vein, and the receipts are of course increasing. Good quartz leads are being discovered on the line of the Pacific Railroad. Californians will remember the case of the schooner Chapman, taken in the attempt to escape from port to follow the profitable calling of privateering. The chief in command of the project on that occasion was tried for treason and convicted and sentenced, pending the carrying out of the sentence a proclamation issued by the President covered his case, and he was released, being set free without a dollar. Harpending, being the heay and front of the offending, being an enterprising sort of a person, took to the country. Some time since he reappeared, and sold a small mine he had acquired somehow. This gave him a little money, and with that capital he set out again, and a few days since sold to A. C. Peachy, H. V. Cronise, and L. Maznard and associates, one-half of a mine up country that he had become owner of, the price paid for the half interest by the parties above-named being $175,000. Dame Fortune certainly plays queer tricks. Here is a man who a few months, or say two years ago, was in irons, being tried for treason, or rather piracy, and was sentenced by Judge Hoffman: to-day he is a millionaire and Judge Hoffman is one of the stockholders in the same association, and they meet in friendly conclave over the affairs of the company. Harpending, says the Judge, did his duty faithfully, honestly, and he likes him amazingly. So much so that he wanted to present the Judge with any quantity of "feet" in his newly-acquired golden soil or quartz. Speaking of mines, this business has its "rages," and fashions almost equal to that of the ladies' bonnets, or the article once so-called, but which have long since lost their identity. For a long time silver veins were the rage and the Comstock lead drove people wild for silver-bearing mines, and they branched off into Mexico and lost plenty of money thereby, and some of them never stopped growling about it, and condemning California for their own want of judgment and sense. Then came the copper fever—everything was copper; that died out. Then hard old granite, and quartz hard enough to make steel wince. That paid very well, but it was slow. Next came the gravel beds, or straits of clay and gravel, which is easily worked by "hydraulicking," as the miners term it. It is washed down into sluice-boxes, and run off through a mile or so of these troughs or boxes; the gold being released from the earth by softening and washing off the clay, falls to the bottom and is taken up by quicksilver. The last feature, however, is the decomposed rock and earth, very extensive beds of which have been discovered. I learn of a very heavy purchase of an extensive district, which has been of no practical value for want of water; but a few gentlemen of wealth and enterprise have bought this ground—something over ten miles in extent—and propose to raise the capital to bring in water some 20 miles, involving the necessity of carrying it across a ravine or valley with a depression of 900 feet. It is a gigantic enterprise, and will cost millions; but the deposit is so extensive and so rich, that it should pay ten times the investment. I learn that Mr. Van Rennsselaer, of Albany, who has recently visited our State, is strongly impressed with the enterprise, and I believe proposes to invest largely in it. The opinion of men of his well-known sound judgment and prudence should certainly carry great weight, as he gave the subject his personal attention and examined the ground thoroughly. I know that there is not much encouragement for Eastern capitalists to invest in our mines, for they have suffered; but then, do they *always* succeed in their investments at home? Do they never go into a "cornering" operation in Wall street, and discover that *they* are the object in a very close corner? Do they never go into a little confidential speculation in the Central or Erie with some of the big operators that have a friend who knows all the ropes, and was a dead sure thing, because the parties were men of honor, very high toned, and discover, at last, that every one of them had his broker at work putting *his* stock through slyly and some of the heaviest of the pool *drew* out early? It works so, and my firm belief is, that no man yet born, was ever able to lay his hand on his heart and declare with a clear conscience that he was truly and purely honest in a horse trade or a stock operation. A son will cheat his own father in a horse trade, we all know, and it is by no means a sure thing the old man would not "brown" the son on the very next "swap," and stock operations are on the same footing, same character, and mankind are no more reliable in that way than the other. If people wish to invest in mines here they can do so and get cheated nearly as bad as at home, at the same time they can make paying and judicious investments, but they must not send out boys and men, who don't know granite from slate, to make such investments, and nephews and stupid brothers-in-law to manage them. I know of a "practical miner" here who spent a quarter of a million on a Reese River mine, who did not know what the word "auriferous" meant, and when I showed him a piece of brick bat he thought it very fair rock. I presume he got his geological education sitting on the rocks with the girls down at Newport, or pic-nicing on the White Mountains. He wore unexceptionable clothes, however. There are good chances here yet to invest in good mines that we have not means to develop, but use ordinary business precaution and judgment in investing, and not go in blind. It is easy enough to know what you are about. You don't buy a cargo of flour, cotton, or pork without inspecting it closely, why should you a mine?

Tennessee.

Professor A. Winchell of the Michigan University writes to a contemporary: It may interest some of your readers to ascertain some definite facts in reference to the petroleum belt stretching along the eastern border of the Highland river, of Tennessee, from Wolf creek to McMinnville. I offer therefore a summary of information derived from observation. The valley of the Calf-killer creek, a tributary of Cany Fork, contains some old salt wells, which have a history not a whit less remarkable than that of the "Old American Well," near Burksville, in Kentucky. About three miles north of Sparta, in White county, is a well, known throughout the region as the "Great Burning Well." I have seen affidavits signed by seven different persons, and certified by the clerk of White county court, to the following effect: That the Great Burning Well was bored for salt somewhat over thirty years ago, but when down to the usual depth a dark and strong smelling substance burst forth with great violence, throwing the tools above the derrick, which was 70 feet high, and in such abundance as to prevent the manufacture of salt from the brine obtained. This substance, which was evidently petroleum, flowed upon the surface of the creek and floated down the stream. At length it became ignited, and the flames ascended in an unbroken sheet to such a height as to illuminate the country for many miles, enabling people to read as by daylight. The accounts assert that it continued to burn at the mouth of the well for many months, and was finally extinguished by the efforts of the proprietor. Some controversy arising in reference to the property, the well was plugged with a tallow bag, and subsequently filled with sediments from the stream. A company are now at work reaming out the well, expecting that the result of re-opening it will be similar to that experienced with the old American well. The same farm embraces another well which is said to have burned in a similar way; and half a mile distant, on another farm, is still another from which the oil burst forth with great violence and in great quantity. This was also filled, and is covered by a mound of earth; but the oil is still oozing slowly. These facts furnish an exact parallel with the great Burksville well; and it is worth while to inquire as to the topographical and geological situation of the locality. This inquiry leads to the discovery that the hope of success in re-opening the Great Burning well is justified no less by the reasoning of science than by the experience of the past. These wells are bored in a formation which, like that of Venango county, Pennsylvania, lies immediately above the celebrated black slate, so prolifically charged with bitumenized matters, that it has been regarded as the mother rock of most of the oil produced in the country. As a further parallel, this formation is of a sandy and porous nature, so as to be fitted for the reception of the products eliminated below. Moreover, it is even cavernous to a greater extent than the Pennsylvania oil rocks; and is covered by a series of limestone strata practically impervious to the escape of the oil throughout most of their extent. The formation in which the oil accumulates, and which is so favorably circumstanced for productiveness, has been styled by Prof. Safford the "Silicious Group," and the limestones above belong to the mountain limestone series. Fossils collected by myself, or placed in my hands by Prof. Safford, indicate that the Silicious group belongs to a more recent geological age than the Venango county shales and sandstones, but the conditions of oil accumulation have no dependence on this fact. The Silicious group, in fact, corresponds to the Keokuk and Warsaw limestones, and is overlaid by the representatives of the St. Louis and Kaskaskia limestones—all members, in ascending order, of the great mountain limestone series of the West. The valley of the Calf-killer is not the only region in which the Silicious group has proved productive in oil. The wells of the Glasgow region in Kentucky are all bored in this group, and many of them terminate in it—a few passing into the black slate, and others descending to the Silurian strata. McMinnville is located upon the same group, and oil to some extent has already been obtained at that place. On Spring creek also, in the southern part of Overton county, are three wells bored in the same group. Two of these are forty feet deep, and produce one hundred and fifty barrels each. The third is four hundred and eighty feet deep, and produces better than either of the others. Unless I am misinformed, some of the wells on Wolf creek occupy the same geological position. Geologically and experimentally this region is proved to be one of great interest and promise; and during the present lull in petroleum matters, our stirring men of oil will be glad of some occasion to arouse their drooping spirits.

Montana.

Yesterday week the steamer Lucy arrived at St. Joseph from Fort Randall, bringing a number of miners and $100,000 in gold dust. The newly-discovered mines in Wind River mountains were not producing as richly as at first reported..... The Virginia City *Democrat* of Oct. 18th contains the following: The most intense excitement in the lower town—Nevada—was caused by the discovery of a paying gulch about 12 miles from Nevada, and about two miles beyond the "Parsons" toll gate. It is called Lead Gulch. One of the districts is named Whalen district, in compliment to the discoverer, Mr. Fergus Whalen. Monday last being representing day, crowds could be seen wending their way across the hills towards the new El Dorado; and, notwithstanding the severity of the weather, nearly all who had claims staked were on hand to represent their ground. At one o'clock the meeting was called to order, and John Donnegan, of Nevada, was unanimously elected president, and Wm. Galbreath was approved of as recorder, he having been elected at a previous meeting. The usual formalities of representing claims were gone through with. Owing to the inclemency of the weather, and the near approach of winter, claims in Whalen district were laid over till spring, though several intend stopping and giving the gulch a thorough prospecting. Our correspondent informs us that he saw 40 cents taken from six pans of dirt, and feels assured that what has been found will pay six dollars a day to the hand. Bed-rock in the channel of the creek has not been reached yet.....A letter from Emigrant Gulch, October 1st, says: The Bear creek stampede has subsided; most persons who visited that discovery are returning, and many pronounce it a total failure, while others represent it to be, like nearly all the discoveries of this season, unattractive on the surface, though promising good pay by the employment of a little time and investment of a little money. Four hydraulic companies are preparing to work the best bars, with every prospect of a good yield. Good wages are being made with the pick and pan, in the bed of the gulch. Yellowstone City, at the mouth of the gulch, is being re-populated, and this vicinity again begins to wear a lively appearance. The water-power of a fine creek, plunging headlong over blue iron boulders, with a fall of eight and a half feet to the hundred, for a distance of thirty miles, will soon be advantageously applied to years of sluicing on the soft caving bars of over a hundred feet in height..... A correspondent writes from Deer Lodge City, Oct. 7th: As for rich quartz, we can now beat the world. There is a lode some ten miles from here, in a southeast direction, lately discovered, that bids fair to rival the richest lodes in the world. The lode is called the Black Fox, and Robert Humber is the happy owner of most of the lode. It was discovered by a Californian by the name of Campbell, but he had no idea of the richness of the lode until after he had parted with it. I am ashamed to state how much the lode yields per ton in pure native gold and silver, for I would not be believed; hence I make no statement for the present.....The Helena *Radiator*, Oct. 12th, says: Letters received during the last week, in this city, from the new mines in the Wind River mountains, do not give as flattering an account of the richness of the ground as previous reports; still, nothing is contained therein discouraging. One letter, on the strength of which several parties set out for the new El Dorado, day before yesterday, asserts that the gold is fine and prospects light; that "they may be called ten or fifteen dollar diggings;" that the ground already discovered is very extensive—sufficiently so to "give employment to ten or fifteen thousand men, at least." Capt. Jeff. Standifer and party, not being satisfied with the country, had started for Mexico, where it is said the captain is heavily interested in quartz operations.

Idaho.

Owyhee.—The *Avalanche* of October 13th has the following items: The following returns have been made to the U. S. Assessor, and the revenue tax paid to the Collector, for September, in Owyhee:

By Blake & Co.	$162,473 85
By King, Webb & Co.	122,794 44
Total	$285,268 29

For the week ending October 13, there were received of crude bullion for assay by these two houses 39,501 ounces .....There is much prospecting for ledges still going on in the Owyhee mountains. In the vicinity of the Poorman a new ledge was struck last

week by George Vass & Co. Fine gold is visible in considerable of the rock, the ore resembling that of the Empire .....A great many men are sinking shafts and running cuts and tunnels on the south and west sides of War Eagle mountain .....A party of miners are working night and day on a prospecting tunnel at the south side of Long Gulch, about one mile above Silver.....The Oro Fino and Morning Star mines have been bonded to J. M. More for $200,000 until June 1, 1867.....Coal beds discovered on Snake river are being opened with a fine show for good veins of coal. A tunnel has been run into the mountain 260 feet; and at this point the coal veins, from one to three feet in thickness, are interlaid through a fifteen feet stratum of clay. The coal has been pronounced by numerous parties who have tried it, as an excellent quality of bituminous coal. By this discovery the great obstacle to the navigation of Snake river from Old's Ferry to Salmon Falls (for want of fuel) is overcome.

Alturas County.—A correspondent of the Idaho *Statesman* gives the following items from Rocky Bar: John Green, superintendent of Waddington & Co.'s mill, has arrived, and says he will have the mill running again in two weeks. The Idaho company also purpose to go to work again. The old Cartee company's mill has changed its directory, and will be crushing rock again soon. The New York and Idaho company's mill is to be sold at sheriff's sale, and there is a good chance for mill-men to buy a first-class ten-stamp battery, with amalgamators and settlers complete, all new.....The same paper says of Yuba district: The discovery of extremely rich ore in the course of the last few months in several different lodes, is now directing much attention to this new mining camp. Too much credit cannot be accorded to those who first undertook the development of these almost inaccessible mines, by the introduction of machinery, and we hope and believe that their success will be equal to their most ardent expectations. About one year ago Capt. Wm. T. Libby, agent and superintendent of the Northern mining company, first had his attention called to this camp, and upon a tour of examination became so favorably impressed, that he at once set about opening a road, hoping to get his machinery —then *en route* across the plains—over the almost impassable mountains lying between Rocky Bar and Yuba, before the winter storms came on. In this, he was disappointed; but succeeded, though at great expense, in getting through a winter's supplies for his employees, and commenced the development of the mines. In the month of June last Captain Libby was suddenly called home, and the entire enterprise devolved upon our old friend M. C. Brown, under whose energetic management roads have been built—the machinery taken safely to its intended destination, and a mill speedily constructed, which is now ready, really, to commence crushing the golden ore. Capt. Defrees soon followed with another mill, that is now in course of construction, and we are told others are soon to follow in quick succession.

Pennsylvania.

In the Venango district, Pennsylvania, lying north and west of the Allegheny, from one hundred and fifty to two hundred miles above Pittsburgh, the prodncing fields are Pithole, comprising but four or five farms, situated on Pithole creek two miles from the Allegheny, and one hundred and fifty-four above Pittsburgh; Oil Creek, extending from Shaffer farm to Oil City, twelve miles; Bennehoff Run, a tributary of Oil creek; Tidieute territory, twenty miles above Pithole. The present yield of these sections, by farms and separate wells, is believed to be nearly as follows:

Section.	Farm or Well.	No. of Wells.	Bbls. per day.
Pithole	Holmden	12	795
	Rooker	5	70
	Hiner	6	450
	Morey	7	340
	McKinney	8	300
Oil City	McElhenny farms	31	528
	Story	23	705
	Tarr	7	395
	Rynd	6	97
	McClintock	41	2305
	Egbert	18	525
Bennehoff Run	Stevenson	10	1205
	Warner	15	1200
Tidieute	Dennis Run	25	1360
	Allegheny, etc	46	2194
Whole product of Venango Co.		278	12,614

—*Mining and Man. Journal.*

Missouri.

The lead mine of Mine la Motte, in Madison county, Mo., was discovered in 1720. It is the largest mine in the world, the vein lying in a horizontal sheet some twenty-five feet below the surface, and averaging about six feet in thickness. The ore, when smelted, yields 37 per cent. and upward of pure lead, and is worked on a breast of some three hundred feet—an opening sufficient to work six hundred men—and lies so near the surface as to prevent any difficulty from excessive accumulation of water, which is very easily drained off at a small cost. The entire tract of land covers over 34,000 acres, of which only 700 have thus far been prospected. Two furnaces are now in operation, turning out three hundred and twenty pigs of lead per day. A company, composed of American and English capitalists, is being formed, who will purchase the property of its present owners, and largely extend the works. Near this mine are large deposits of nickel and cobalt, which have not been worked since 1846.....Another cotemporary says: A valuable cobalt and nickel mine has just been opened in Madison county, Missouri. This ore is worth, in Birmingham, England, $150 per ton. It is estimated that it can be dug from the mine and delivered at St. Mary's landing, on the Mississippi river, at $7 per ton; from thence to New Orleans for $10; thence to England in cotton ships as ballast. A miner can get out and prepare for market one hundred and twenty tons per annum. A hundred miners would take half a million a year at this rate.

Michigan.

The Marquette *Mining Journal*, Nov. 3d, says: The Pittsburg and Lake Angeline Iron company has done exceedingly well during the present season. Its shipments of ore up to October 25th, exceeded the total shipments of last year by 2,000 tons—the total to the above date being 24,686 tons, which will probably be increased to 26,000 before the close of navigation .....The Ontonagon *Miner* of same date, says: At the National Mine repairs on the stamp-mill and the removal of the boilers having been completed, some days since, they are now producing rather more than the usual quantity of this character of mineral. The mill is now in good repairs throughout, and will probably run for the winter without any further hindrance, and their dams are all for the first time in more than a year, full of water. The mine promises well .....At the Mass mine more activity may be expected than heretofore. Late instructions from headquarters direct surveys for a deep adit from the south side, and preparations for the early erection of a stamp mill. The movements if persistently followed out will almost without a pre-adventure, result in the opening of one of the richest mines on the Evergreen range. About a ton of mineral was brought down from the mine this week ... The sale of the Bohemian Mining company's property has been postponed until Nov. 22nd.

New Mexico.

The Santa Fé *Gazette* of Oct. 27th, states that Col. Anderson's prospecting expedition—particulars concerning which have already appeared in the JOURNAL OF MINING—left, Kansas, Aug. 20th, arrived at Santa Fé Oct. 12th, and left for Pinos Atlos, Oct. 18th, with four wagons, 25 head of cattle, and provisions for three or four months. We trust that they will find the rich mines they expect to.

Georgia.

"Quondam" writes: The gold fever in Upper Georgia is on the increase. New veins are being discovered weekly. The news from the diggings is very encouraging, and lots within the "gold belt" are bringing immense prices.

Canada.

A stock company which was formed to work the iron mine discovered sometime since near Ratchewanung Bay, on the Canadian shore of Lake Superior, has, after a series of misfortunes, made a strike by discovering new beds of ore, which are said to be the finest ever yet discovered in that vicinity. The ore is strongly *magnetic*, being what is technically known as the "black band" ore, remarkably fine and close, similar to Scotch, and equal to any in the world. The company is making preparations to do a heavy business the coming winter.....In the Enniskillen district, Canada West, lying along the Great Western railroad from sixty to one hundred miles east of Detroit; the producing centres are Bothwell, sixty-eight miles east of Detroit; Wyoming, the same distance further east; and Petrolia. Our reports from either district, says an exchange, are very meagre, and our only basis for figures is the actual production three months ago less the present natural loss, owing to the low price of oil, the abandonment of pumping wells, and Fenian scares. Petrolia is undoubtedly the best producing field at present. But the daily production of all three districts and small territories outside cannot exceed four hundred barrels.

Peat as Fuel.

We had occasion says a Canadian paper, to refer at different times to the experiments being presented by Mr. Hodges, at Balstrode, C. E., with the view of ultilizing peat and of adapting it to economical purposes. These references have been made more particularly to the mode that gentleman has adopted for the manufacture of the crude material into a shape which adapts it to steam purposes, and at a cost which brings it into direct and favorable competition with our other fuels, wood, coal, coke, etc. We have now the pleasure of noticing the result of the first of a series of experiments on a large scale, at present being carried on under the auspices of Mr. Eaton, superintendent of the Grand Trunk motive power, and shall watch the succeeding trials with much interest. On the morning of the 4th of the present month, a train five hundred feet in length, composed of freight and passenger cars, left Point St. Charles for the West, being the heaviest train dispatched during the present season. The tender of the locomotive was filled before starting with the fuel in a pure state, that is to say, with peat containing about thirty per cent. of its weight in water. It is stated in explanation of this, that owing to the excessively wet season it was found impracticable to bring the peat to the required degree of dryness in the open air, when in practice with an ordinary season it would not have contained above ten per cent. of moisture. The steam producing qualities of the peat experimented on, will, therefore, bear to the properly cured article about the relation which green wood bears to to that well seasoned. The train, with one tender full of green peat, ran to Matilda, a distance of one hundred and two miles, carrying a full head of steam all the entire distance, and with a saving of six minutes in the time indicated by the time-table. This most satisfactory result must be very pleasing to the authorities of the Grand Trunk railway, as well as to Mr. Hodges, when we reflect that had green wood been employed in place of the half dry peat, it would have been impossible to raise steam in sufficient quantities to have even moved the huge train. The fire-box of the engine employed was specially designed by Mr. Eaton, for the consumption of this new and novel fuel, in a very ingenious but cheap manner, and, no doubt, that gentleman will apply additional improvements which further experiments may demonstrate to be required for the full and perfect combustion of the fuel.

Peat Fuel for Smelting.

We learn from the Montreal *Herald* that an experiment has been made at the Caledonia Iron Works, as to the use of air-dried peat for smelting purposes. The test has been a severe one, and completely successful. A cupola was filled with ore, part mixed with coal and the remainder with peat. The usual proportion of coal to the ore is one to seven, and two-thirds of the cupola was filled in the usual manner, the remaining third being occupied with peat and ore in the proportion of one of peat to twelve of ore. The metal was ready for the mould in 40 minutes less than the ordinary time required when coal is used, and the iron produced by the peat was of a better quality than the other. Mr. McDougall, of the Caledonia Iron Works, Mr. Watson, President of the Canada Iron Smelting company, Mr. Shanly, and Mr. Eaton, Superintendent of the Grand Trunk Locomotive Department, are said to have all concurred in the opinion as to the superior quality of the peat smelting iron. It is claimed that it is both more compact and more tenacious than ordinary iron. Should future experiments establish the correctness of these views, a new impetus will be given to the industry of the Province. The deposits of iron ore are abundant, and if peat can be utilized for smelting it, the mineral resources of our country will be more rapidly developed than they have been in years past.

Living Fish in the Dead Sea.—Chemical Composition in the Water.

M. Terrell, who accompanied the Duc de Luynes to Palestine in 1865, has addressed a paper to the Academy on the chemical composition of the waters of the Dead Sea. The inland lake has generally been untenanted by living creatures, but M. Terrell states that near Sodom he distinctly saw a number of small fish that seemed to thrive well. His other observations may be summed up as follows:—1. The density of the waters of the Dead Sea increases with their depth. 2. Their composition is not everywhere the same; thus the samples taken at a distance of five miles east of Wady Mrabba contain four times more calcium than those taken five miles east of Ros Teshkah, which contain twice as much sodium as the ration is concent. 3. Their former, likewise variable. 4. The samples taken north of Sodom, in that part which forms a lagoon, contain more chloride of sodium than chloride of magnesium; this explains why little fish will live in it. 5. Of all the salts contained in the Dead Sea, the bromides alone seem to be much more concentrated at the bottom, in those strata the depth of which exceeds three hundred metres. 6. The waters of the Dead Sea contain no iodine, nor are there any traces of phosphoric acid. 7. Their residue after evaporation does not, by the spectroscope, reveal the presence either of lithine, or oxsium, or rubidium. They contain little sulphuric acid.—*Galignani's Messenger.*

☞ A rich city is Chihuahua (i. e., City of Joy), in Mexico. Most of the houses therein are built of ore, from which the silver has been only partially extracted. The number of inhabitants has been reduced from 80,000 to 12,000. An American proposed lately to buy all the buildings, gradually, and to extract the silver from them.

French Marble.

There is not another mineral substance appearing under such varied forms as carbonate of lime. The soft, white chalk with which we write on a slate is chemically the same as the marble of our costly palaces, or the material out of which the sculptor creates his most valued masterpiece. France possesses some excellent kinds of marble, especially in the department of the Jura. Mollinges is a commune situated near Sainte Claude, and containing 350 inhabitants, nearly all engaged in working the marble quarries of the place, one of which yields a light violet colored sort, and the other a yellow kind with white veins. The marble of Molessard is of a greenish yellow, and when polished presents a most singular aspect, a quantity of fossil remains, such as the teeth and spines of sea urchins, shells, &c., with here and there a few chrystallized laminæ, producing a most agreeable contrast. It is chiefly used for small ornaments.

GOLD.

COMPANY.	SHARES.	STOCK.	SITUATION OF MINE.	SECRETARY & PLACE OF BUSINESS.
Acadia			Nova Scotia	H. W. Nelson, 24 City Ex., Boston
Ada Elmore	200,000	2,000,000	Boise Basin, Idaho	R. Lawrence, 157 B'way, N. Y.
Amber	200,000	500,000	Greene Co., Penn.	Geo. W. Grove, 276 S. Third, Phil
Albion		500,000	Halifax, Nova Scotia	H. W. Nelson, 24 City Ex., Boston
Alps	100,000	2,500,000	Illinois Central Dist., Col.	J. Stanton, Jr., 25 Nassau, N. Y.
Ascot	50,000	5,000,000	Sherbrooke, Canada E.	G. H. Morrison, 17 Nassau, N. Y.
Atlantic				Chas. Barrett, 13 Doane, Boston
Atlantic & Pacific			Humboldt T., Humboldt co.	J. N. Sewall, 8 Broad, N. Y.
American	100,000	2,000,000	Gregory Dist.	
American Flag	400,000	600,000	Nevada Dist., Col	H. Foltz, 71 B'way, N. Y.
Astor	200,000	1,000,000	On Comstock Lode	J. Chapman, 71 Broadway, N. Y.
Baltic			Colorado	New York.
Bates & Baxter			Colorado	New York.
Bay State	200,000		Colorado	Long'l Bange, Boston.
Benton	100,000	500,000	Colorado	F. W. Capen, 34 Ex. Pl., N. Y.
Black Hawk	50,000	5,000,000	Gilpin co., Col.	D. Littlejohn, 81 John, N. Y.
Beacon		500,000	Halifax co., Nova Scotia	J. B. Post, 26 Ex. Pl., N. Y.
Bobtail	100,000	1,000,000		J. Stanton, Jr., 25 Nassau, N. Y
Bragg	10,000	1,000,000	Gilpin co., Col.	D. Littlejohn, 81 John, N. Y.
Bradshaw	250,000	1,000,000	Yavapai County, Arizona	O. H. Conover, 218 Dock st., Phil
Burroughs	100,000	1,000,000		L. Bangs, 22 Pine, N. Y.
Ballion	200,000	1,000,000	Bannock, Montana	69 Liberty, N. Y.
Ballion Consol	200,000	200,000	Campbell and Clear Creek, Col.	J. P. Whitney, 19 Lindall, Boston
Galvin	200,000	1,000,000	Clear Creek co., Col.	
Canadian				A. Call, 7 Phœnix B'l'g, Boston.
Chem. Gold & S. R			Eldorado Company, Cal.	64 B'way
Church Union	210,000	1,200,000		Jesse G. Tilts, 69 Liberty
Chebucto	100,000	500,000	12 miles from Halifax	J. E. M. Gilley, Boston.
Clarendon		500,000	5 miles from Halifax	H. Isaac, 41 state, Boston
Chase	5,000	500,000	Colorado	W. E. Lawton, 81 John, N. Y.
Central Gold M	20,000	1,000,000	Central City, Col.	L. Bangs, 17 Nassau, N. Y.
Central Mining	200,000	1,000,000	Colorado	46 Exchange Pl., N. Y.
Chandlers	100,000	500,000	5 to 8 Tunnels Ray, C. E.	Wm. B. Fowle, Boston.
Cobden	100,000	1,000,000	Idaho	New York.
Colonial				W. N. Ely, 7 Tray'r B'l'g, Boston.
Colorado Boston			Colorado	R. C. M Laughlin, 60 state, Bos'n.
Colorado N. Y.			Colorado	12 Pine, N. Y.
Coleman			Colorado	New York.
Columbia	50,000	2,000,000	Austin City, Nevada	15 Pine, N. Y.
Consuelo Gold				54 William.
Consol Gregory	50,000	5,000,000	Gregory Dist., Col.	30 Pine, N. Y.
Cook & Kimball	1,000	150,000	Colorado	W. A. Baldwin, 57 Wm., N. Y.
Copalmshee	250,000	5,000,000	Parke co., Col.	J. C. Stecker, 157 B'way, N. Y.
Corrisanne	100,000	1,000,000	Colorado	New York.
Commonwealth			Nevada	Philadelphia.
Corrydonn	100,000	2,500,000	Gilpin co., Col.	46 Exchange Pl., N. Y.
Continental	20,000	2,000,000	Gregory Dist., Col.	115 Liberty, N. Y.
Central Gold	200,000	1,000,000		L. Bangs, 22 Pine, N. Y.
Dauphin & Gold	200,000	1,000,000	Colorado	John S. McKittin, 423 Walnut, Pa.
Day & Bushnell	200,000	2,000,000	Colorado	T. Chalmers, Jr., 16 Ex. Pl., N. Y
De Lexy		10,000,000	Dandelion Valley, Canada E.	J. M. Winchell, 72 Cedar, N. Y.
Denver	20,000	1,000,000	Gilpin & Clear Creek, Col.	J. Wadsworth, 61 Cedar, N. Y.
Devonshire				W. Stockbridge, 74 Fr'klin, Bos'n
Downieville	500,000	500,000	Colorado,	J. C. Harriott, 70 Wall, N. Y.
Dorset			Chandiere River, C. E.	F. McInnesy, 59 Wm., N. Y.
Eagle	100,000	1,000,000	Gold Dirt Dist., Col.	J. P. Dwyer, 81 John, N. Y.
East Bannock	100,000	200,000	Bannock City, Montana	J. Callender, 48 Ex. Pl., N. Y.
Eldorado	500,000	2,500,000	on A Dist., 9 miles of Austin	208 S. Fourth, Phila.
Empire Mill & M				O. F. Griffin, San Francisco.
Enriquetta			Arizona	New York.
Esperanza		500,000	Star D., Humboldt co.	117 Broadway, N. Y.
Etna	50,000	500,000	Nevada Dist., Col.	C. W. Bryant, Boston.
Excelsior	20,000	200,000	Central City, Col.	J. Weatherbee, Jr., 11 P. B'g, Bos.
Fairmount	20,000	200,000	Colorado	John P. Harker, 240 N. 6th, Phil.
Fanuine Falls	100,000	1,000,000		D. L. Dodge, 80 B'way, N. Y.
Garrisons	100,000	5,000,000	Colorado	C. G. Mease, 29 William, N. Y.
Gem	25,000	1,250,000		H. K. Gates, 101 B'way, N. Y.
Georgetown			Colorado	New York.
Gilbert River				C. L. Jackson, 18 Hock'r B'g, Bos'n.
Gilpin				C. W. Gallopge, 76 state, Boston.
Golconda	250,000	5,000,000	Sherbrooke, Canada E.	W. H. Adams, 10 Broad, N.Y.
Gold Field				C. B. Cowling, 39 Kilby, Boston.
Gold Rock	5,000	500,000	Central City, Colorado	R. M. Lockwood, 113 Wall, N. Y.
Gold Hill	50,000	500,000	Colorado	W. T. Eustis, Boston.
Gold Mountain	600,000	6,000,000	Clear Creek Co., Colorado	59 Nassau, New York.
Gold Min'g & Co	50,000	2,000,000	Colorado	E. Latham, 23 William, N. Y.
Golden Gate	60,000	600,000	Sum. Hum'dt & Mid. D., Mon.	J. Morse, Jr., 117 B'way, N. Y.
Gunnel Central			Colorado	70 Broadway, N. Y.
Gunnel Gold	200,000	2,000,000	Colorado	F. E. Rochfon, 78 & 80 B'way, N.Y
Gregory	20,000	1,000,000	Colorado	Enos. Wilkes, 17 William, N. Y.
Granada	50,000	125,000	Colorado	J. Stanton, Jr., 25 Nassau, N. Y.
Great Western	60,000	600,000	Russel Hill, Col.	E. Kenneys, 70 Broadway, N. Y.
Gunnel Gold	100,000	1,000,000	Colorado	F. E. Rochfon, 78 B'way, N. Y.
Halifax				A. Cass, 7 Phœnix B'l'g, Boston.
Harmony				Dennis Barnes, 21 Park Row.
Hemit'ge Ranch	20,000	200,000	El Dorado, Cal.	
Home	80,000	2,000,000	Gold Dirt Lode, Gilp. co., Col.	J. P. Davies, 81 John, N. Y.
Holman	150,000	300,000	Gilpin co., Col.	J. O'Neill, 24 Nassau, N. Y.
Humboldt	100,000	500,000	Colorado	78 B'way.
Idaho Gold	100,000		Montana	5 Pine, N. Y.
Isaac's Harbor	100,000	500,000	Isaac's Harbor, Nova Scotia	W. F. Shirley, 137 B'way, N. Y.
Isle Royale				44 Ex. Pl.
Kansas Colorado	100,000	1,000,000	Colorado	J. G. Greenlies, 111 B'way, N. Y.
Kent				G. H. Wyman, 19 Phœ'x B'l'g, Bos.
Kip & Buell	100,000	200,000	Colorado	J. C. Harriott, 70 Wall, N. Y.
Knickerbocker	100,000	1,000,000	Colorado	F. Avery, 78 B'way, N. Y.
La Crosse	100,000	$1,000,000	Nevada Dist., Colorado	H. Fales, 71 B'way, N. Y.
Lichie	200,000	$1,000,000	Colorado	
Lake Major	12,000	600,000	Nova Scotia	Fred. Franck, 113 Water, N. Y.
Mariposa Gold	100,000	10,000,000	Bear Valley, Cal.	G. W. Farlee, 34 Wall, N. Y.
Mammoth	50,000	500,000	Colorado	J. Jarrett, 41 Liberty, N. Y.
Manhattan	100,000	400,000	Colorado	W. R. Lothrop, 172 B'way, N. Y
Massachusetts	250,000	250,000	Gilpin co., Col.	W. D. Briggs, 11 Phœ'x B'l'g, Bos
Merchants	30,000	600,000	Alturas co., Idaho	Jas. K. Selleck, 157 B'way, N. Y.
Metropolitan				
Mountain Pride	100,000	1,000,000	B'r C'k, St. Esc., Idaho	29 Pine, N. Y.
Montague	50,000	500,000	near Halifax, Nova Scotia	C. B. Cowling, 39 Kilby, Boston.
Mount Alpine			Griffith Dist., Clear C'k, Col.	J. B. Randol, N. Y.
Mount Vernon	500,000	5,000,000	Mt. V. & Mam'th Dist., Nev.	25 Park Row, N. Y.
Mount Vista	50,000	500,000		J. Chapman, 23 Nassau, N. Y.
Montana	100,000	400,000	Nevada, Ills., Greg'y, Col.	A. L. Guerber, 54 Wm, N. Y
Monte Christo	100,000	2,000,000	White Pine District, Nev.	Thos. Dunlap, 413 Chestnut, Phil
Montezuma	100,000	500,000	Colorado	F. B. Webster, Boston.
Montrose	100,000	1,000,000	Clear Creek co., Col.	C. A. W. Sibley, 80 B'way, N. Y.
Morning Star	5,000	5,000,000	Owyhee co., Idaho	E. M. Barnum, 157 B'way, N. Y.
Mexican Pacific	100,000	10,000,000	Mexico	J. Mackie, 88 Wall, N. Y.
Meloces & Stan			Calaveras co	606 Mont, San Francisco.
National	500,000	3,000,000	on So. Boulder C'k, Col.	31 School, Boston.
Nevada Star				25 Pine, N. Y.
New England	50,000	150,000	Black Hawk, Col.	J. Weatherbee, Jr., Boston.
New Mexico			near Santafe	
New Gregory				W. A. Kent, 144 State, Boston
New York City	50,000	5,000,000	G'd Canon D't, Land. co. Nev.	10 Pine, N. Y.
New York Dist.	50,000	500,000	Austin, N. Y. Dist., Nevada	71 B'way, N. Y.
New York of Col	60,000	1,000,000	Colorado,	F. E. Rochfon, 74 B'way, N. Y
N. Y. & Nevada	100,000	1,000,000	Nevada	J. J. Osborn, 30 Pine, N. Y.
N. Y. G Min'g	100,000	1,000,000	Colorado	F. E. Rochfon, 78 & 80 B'way.
N. Y. & Eldor'do	250,000	2,500,000	Nevada	G. H. Munroe, 106 B'way, N. Y.
N. Y. & Idaho			Idaho	180 Chatham, N. Y.
N. Y. & Santa Fe			Nevada	New York.
N.Y. & Owyhee		1,000,000	Owyhee co., Idaho	6 Pine, N. Y.
N. Y & Oro Fino	10,000	1,000,000	Owyhee co., Idaho	137 Broadway, N. Y.
N. Y. & Reese R			Nevada	New York.
N. Y. & Renfew				2 Murray, N. Y.
N. Y. & Washoe			Nevada	New York.
North Clear C'k	100,000	1,000,000	Gilpin co., Col.	J. Francis, 80 B'way, N. Y.
Nova Scotia				Chas. Barrett, 13 Doane, Boston
N. Y. & Novase	100,000	1,000,000	Tangier, Nova Scotia	Jos. E. Gay, 3 Hanover, N. Y.
National S Min'g		1,500,000	Owyhee co., Idaho	115 B'way, N. Y.
Occidental	5,000	500,000	Nevada & Ills. C. Dist., Col.	100 B'way, N. Y.
Oldham				Chas. Barrett, 13 Doane, Boston
Ophir	62,500	625,000	on Comstock Lode, Nevada	Moses A. Hopcock, 45 William.
Pacific	40,000	4,000,000		24 Pine, N. Y.
People's	100,000	5,000,000	Alpine & Sierra cos.	23 Nassau.
Peck				E. B. Sawyer, 144 State, Boston.
Perigo	60,000	3,000,000	Ind. Dist., Gilpin co., Col.	J. W. Stratton, 90 B'way, N. Y.
Pine Mountain	30,000	3,000,000	Pine Mountain Dist., Nev.	F. K. McCully, 157 B'way, N. Y.
Pioneer & Inskip			Buena Vista Dist., Nevada	15 Nassau, N. Y.
Phila. & Color'do	20,000	1,000,000	Central City, Col.	E. W. Clark & Co., Phila.
Phelps & Gilm'r	200,000	1,000,000	Colorado	W. H. Steudevant, 25 Nassau.
Pleasant Valley	125,000	1,250,000	Colorado	J. S. Lyon, 69 Wall, N. Y.
Pontiac	50,000	1,000,000	Ill. Cen. M Dist., Col.	R. H. Rickard, 19 Nassau.
Prescott	100,000	1,000,000	Central Arizona	69 B'way, N. Y.
Quaker City			Ind't D't. G'd D't City, Col.	103 South Third, Phila.
Quartz Hill	40,000	100,000	Nevada Dist., Col.	J. A. Tyler, 29 Wall, N. Y.
Ranche C'k	10,200	1,200,000	Pine Wood Dist., Nevada	18 Broad, N.Y.
Rexlito		1,000,000	G'd Hill D., storey co., Nev.	117 B'way, N. Y.
Reese River Pr'l	100,000	1,000,000	AmaderDist., Lander Co., Nev.	Elijah Alliger, 67 Wall, N. Y.
Renfrew				W. Stockbridge, 74 Fr'klin, Bos'n.
Republic	15,000	1,500,000	Amador B., Lander co., Nev.	67 Exchange Pl., N. Y.
Rocky Mountain	50,000	500,000	Grey & Empire Dists., Col.	E. L. Bolles, 70 B'way, N. Y.
Reciprocity	100,000	1,000,000	Canada East	B. B. Grant, Jr., 71 B'way, N. Y
Scorpion			Virginia City, Nevada	617 Clay, San Francisco.
Sherbrooke	100,000	1,000,000	Sherbrooke, Canada East	F. Schumacker, Cliff, N. Y
Silas Wright	60,000	600,000	Amador D., Lander co., Nev.	15 Wall, N. Y.
Silver State	100,000	500,000	{ Humb't Starr, Pr. R. D. / Humb't co., Nevada.	R. S. Miller, 49 William, N. Y
Silver Wave	200,000	3,000,000	Reese riv., Lander co., Nev.	Emmet Blair, 243 B'way, N. Y
Smith & Prindle	125,000	2,500,000	Colorado	G. A. Lathrop, 4 Broad, N. Y.
Smithfield	100,000	400,000	Gilpin Co., Col.	A. F. Baum 48 Broad st., N. Y.
Spanish		3,000,000	La Plata, Churchill co., Nev.	228 South Third, Phila.
So. Clear C'k			Colorado	Canastota, N. Y.
Starlight Ledge	50,000		Pyrille, El Dorado co.	
Star of Color	200,000	2,000,000	Colorado	J. N. Powers, 22 Pine, N. Y
Standard	50,000	500,000	Gregory Dist., Col.	T. A. Mitchell, 70 B'way, N. Y
Steptoe	20,000	2,000,000	G'd Can., Lander co., Nev.	10 Pine, N. Y.
Sterling City		1,200,000	Colorado	New York.
Stewart	100,000	500,000	Colorado	C. Durham, 31 Exchange, Boston
Suffolk				Carlos Cobb, 22 William, N. Y.
Southard				Wm. Wallace, 11 Doane, Boston.
Stafford				C. E. Jackson, 15 Central, Boston
Escher	100,000	1,000,000	Colorado	F. J. Wright, 8 Wall, N. Y.
Texas	50,000	500,000	Black Hawk City, Colorado.	Wm. E. Parish, 155 B'way, N. Y
Trinado			San Antonio, L. Cal.	San Francisco.
Union	240,000	2,000,000	Colorado	F. A. Potts, 110 B'way.
United States	75,000	1,500,000	Colorado	J. F. Stevens, N. Y.
University				31 Nassau, N. Y.
Virginia City	250,000	250,000	Nevada	J. B. William, 78 & 80 B'way.
Wahka Yuma	600,000	6,000,000	Arizona	35 William, N. Y.
Waddingham	48,000	1,200,000	Alturas co., Idaho	Jas. K. Selleck, 157 B'way, N.
Waverley				J. Leighton, 97 State, Boston
Windsor Gold M	10,000	100,000	Colorado	25 William, N. Y
Wilson & Cass			Colorado	New York

LEAD.

COMPANY.	SHARES.	STOCK.	SITUATION OF MINE.	SECRETARY & PLACE OF BUSINESS.
Amenia	100,000	$ 500,000	Duchess co., N. Y.	G. Furman, 77 Cedar, N. Y.
Bucks County	10,000	200,000	Bucks co., Pa.	R. R. Sinclair, 55 Ex. Pl., N. Y.
Canada	40,000	250,000	Canada	J. Stanton, Jr., 25 Nassau, N. Y.
Cute	150,000	500,000	Macomb T. St. Law. co., N. Y.	Lev'y S. Merrill, 42 Cedar, N.Y.
Continental	200,000	500,000	Martinsburg, N. Y.	J. Sickles, 67 Ex. Pl., N. Y.
Eastport	100,000	1,000,000	Eastport, Me.	R. Vose, 54 William, N. Y.
Erie	40,000	4,000,000	Orange co., N. Y.	Ogden Gaul, 25 Pine, N. Y.
Hampton	100,000	500,000	Hampshire co., Mass.	C. W. Bryant, Boston.
Jefferson				59 Wall, N. Y.
King's Hill	6,000	50,000		W. L. Bassin, 150 B'way, N. Y.
Lake Superior	200,000	1,000,000	7 Secs. & 36 T., 49 & 50 R., 28 & 29 Marquette co., Mich.	C. L. Mather, N. Y.
Lancaster	50,000	250,000	Lancaster co., Pa.	J. R. Sibley, 35 Pine, N. Y.
Macomb	10,000	500,000	Macomb T. St. Law. co., N. Y.	C. E. Scofield, 42 Cedar, N. Y
Maine	50,000	500,000	Eastport, Me.	A. L. Butler, 54 William, N. Y.
Mineral Point	100,000	500,000	St. Lawrence co., N. Y.	H. W. Warren, 60 City Ex., Bston.
Morgan	150,000	500,000		W. Williams, 42 Cedar, N. Y.
Morman				40 B'way, N. Y
Mount Hope	80,000	200,000	Mt. Hope, Orange co., N. Y.	W. Williams, 24 Pine, N. Y.
New Hampshire	100,000	500,000	New Hampshire	W. A. Farrar, 71 B'way, N. Y.
N. Y. & Boston		1,000,000	Chester co., Pa.	S. M. Cockelin, 22 William, N. Y
Oswegatchie				24 Pine, N. Y.
Owens Lake	50,000	250,000		C. W. Bond, 78 Cedar, N. Y.
Phœnix	50,000	250,000	Columbia Co., N. Y.	G. W. Butler, 54 William, N. Y.
Placentia Bay	200,000	1,000,000	Newfoundland	J. Simpkins, 29 Wall, N. Y.
Ramsay	20,000	500,000	Township Ramsay, C. W.	C. W. Bryant, Boston.
Rochester	100,000	500,000		J. A. Ferguson, 8 Wall, N. Y
Rossie				24 Pine, N. Y.
Rosa Clara	100,000	1,000,000		H. Lathrop, 25 Nassau, N. Y.
St. Clair	100,000	1,000,000		H. B. Hawkins, 25 Nassau, N. Y
St. Joseph	100,000	1,000,000	St. Francis Co., Missouri.	Jas. R. Knapp, 6 Broad, N. Y.
Shawanguak	100,000	500,000	Mt. Hope, Orange co., N. Y.	E. P. Ackerman, 48 Pine, N. Y
Sussex	25,000	625,000	Sparta Town, Sus'x co., N. J.	F. H. Stow, 53 Cedar, N. Y.
Walkill			Orange co., N. Y.	W. A. Scott, 11 Wall, N. Y.
Warren			Warren, Grafton co., N. H.	J. S. Christie, 100 B'way, N Y
White Mountain			New Hampshire.	111 B'way, N. Y.

SILVER.

COMPANY.	SHARES.	STOCKS.	LOCATION OF PROPERTY.	SEC'Y AND PLACE OF BUSINESS.
Amazon	25,000	$250,000	Nevada	W. L. Louther, 134 So. 3d, Phil.
Argentine	50,000	250,000	Argentine Dist., Colorado	D. L. Demmon, 134 State, Boston
Arizona	100,000	10,000,000	22 m W of Tubac, Arizona	J. B. Randol, 25 Nassau, N. Y
Astor	200,000	1,000,000	On Comstock Lode, Nev	J. Chapman, 71 Broadway, N. Y.
Atlantic & Pac	50,000	1,000,000	Humboldt T, Hum't Co, Nev.	J. N. Sewall, 8 Broad st., N. Y.
Big Smoky	20,000	600,000	Smk'y Hill, Lander Co. Nev.	71 B'way.
Black Eagle	7,000	350,000	Carson, Owyhee co., Idaho	O. D. Gardner, 40 Maiden lane.
Bullion	200,000	1,000,000	Bannock, Montano	55 Liberty street.
Bush	50,000	500,000	Austin City, Nevada	176 Chambers st., N. Y.
Combination	5,000,000	50,000	Nevada	J. W. Stoute, Jr., 155 B'way, N.Y
Colorado Con			Cedar Hill Nevada	New York.
Columbia	30,000	3,000,000	Austin City, Nevada	J. E. Smith, 10 Pine street, N. Y.
Conn. & Nevada	120,000	1,250,000	Averill, Churchill Co. Nev	49 Liberty street, N. Y.
Commonwealth	200,000	2,000,000	Gold Hill, Nevada	78 B'way, N. Y.
Cosmos	10,000		Owyhee Co, Idaho	137 Broadway, N. Y.
Del Norte & S'br			Lower California	New York.
Durango	5,000	500,000		W. R. Garrison, 73 W'm st., N Y.
East Bannock	100,000	200,000	Bannock City, Montano	J. Callender, 49 Ex. P., N. Y.
Empire G. & S.	100,000	10,000,000	Bodie Bluff, Mono	H. R. Gates, 191 Broad'y, N. Y.
Empire and Silver State	20,000	2,000,000	Reese River Dist., Nevada	57 B'way, New York.
Eldorado	500,000	2,500,000	San A 90 m s of Austin, Nev	208 South Fourth street, Phila.
Essex & Diadem	125,000	2,500,000	Sierra dis, Humboldt C. Nev.	A. R. Wetmore, 81 Vesey st., N.Y.
Franklin			Nevada	Philadelphia.
Gem	200,000	1,250,000		H. K. Gates, 191 B'way, N. Y.
Globe	100,000	500,000	Austin, Nevada	J. W. Brazier, 26 Pine, N. Y.
Good Hope	20,000	1,000,000	40 m S of Austin, Nevada	80 Broadway, N. Y.
Huron			Montano	New York.
Incas	300,000	300,000	Summit co., Colorado	J. P. Whitney, 19 Lindall, Bost.
Knickerb'r and Nevada	20,000	2,000,000	Union Dis, Nye Co, Nev	H. R. Shotwell, 70 Cedar, N. Y.
Lander Hill			Nevada	74 B'way, New York.
Lincoln		1,000,000	Owyhee Co, Idaho	80 Broadway, N. Y.
Lw'r California	40,000	2,000,000	North Part of Lower Cal	55 William street, N. Y.
Madison	30,000	3,000,000	Nevada	W. W. Perkins, 71 B'way, N. Y.
Macedon			Nevada	Philadelphia.
Manhattan			Nevada	57 B'way, New York.
Merchants	30,000	600,000	Alturus Co. Idaho	157 Broadway, N. Y.
Metropolitan	15,000	1,500,000	Austin City, Nevada	158 Broadway, N. Y.
Morning Star	5,000	5,000,000	Owyhee County, Idaho	137 Broadway, N. Y.
Mount Vernon	500,000	5,000,000	Mount Vernon & Mammoth District, Nevada	New York.
Mount Vista	50,000	500,000		J. Chapman, 71 Bway, New York.
National	15,000	1,500,000	Owyhee Co, Idaho	115 Broadway, N. Y.
Nevada	100,000	300,000	Mountain Wells, D. Ch. co. Nev	323 Walnut street, Phila.
Nevada	20,000	1,200,000	Nevada	E. L. Boiles, 74 B'way, N. Y.
New Y'k & Ione	20,000	2,000,000	Ione City, Nye Co., Nev	71 Broadway, N. Y.
New York	1,500	1,500,000	Austin, Nevada	S. R. Hutchinson, 80 B'way, N.Y.
New York City	50,000	5,000,000	Gold Can Dist. Lander Co. N	10 Pine street. New York.
New Y'k Dis't ct	50,000	5,000,000	80 m f'm Austin, N. Y. Dis. Nevada	S. A. Hopkins, 71 Broadway, N Y
New Y'k & Nev	10,000	1,000,000	Nevada	J. J. Osborn, 30 Pine street, N. Y
N. Y. & Owyhee		1,000,000	Owyhee Co. Idaho	6 Pine street, New York.
N.Y. & Oro Fino	10,000	1,000,000	do. do.	137 Broadway, New York.
N. Y. and Silver Peak	20,000	2,000,000	Nye County, Nevada	R. C. Root, 74 Broadway, N. Y.
N Y. & Santa Fe			Nevada	New York.
N. Y. & Washoe			Nevada	New York.
North Am. M'g			Nevada	Philadelphia.
Ocean Transit		1,500,000	Lower California, Mexico	24 Pine, N. Y.
Ophir			On Comstock Lode, Nev	
Pah Ranagat C'l	50,000	5,000,000	Nevada	26 Pine, N. Y.
People's	100,000	500,000	Alpine & Sierra Counties	8 Pine street, New York.
Phœnix	200,000	2,000,000		48 East 26th street, New York.
Picacho	50,000	2,000,000	Arizona	T. H. Perkins, New York.
Pine Mount'n	30,000	3,000,000	Pine Mount'n Dist. Nev	F. K. McCulley, 100 B'way, N. Y.
Pioneer & Iuskip			Buena Vista Dis., Austin, Nev	15 Nassau street, New York.
Prescott	50,000	2,500,000	Arizona	T. H. Perkins, New York.
Presidential	125,000	2,500,000	Austin, Nevada	Wm. Lemmon, 17 Broad, N. Y.
Republic	15,000	1,500,000	Amador, D Lander Co. Nev	67 Ex. Place, New York.
Revenue Exten	50,000	500,000	Lander County, Nevada	W. L. Kite, 142 South 4th, Phila.
Rosario & Carmo	5,244	1,480,000	Sinaloa, Mexico	San Francisco.
San Antonio	60,000	3,000,000	Arizona	C. Lamson, 21 Nassau st., N. Y.
Seminole	7,000	1,500,000	Univer., Humboldt Co. Nev	L. G. Wilkin, 119 B'way, N. Y.
Silas Wright	60,000	600,000	Amador, D Lander Co, Nev	18 Wall street, New York.
Silver Hill	40,000	1,000,000	Nevada	J. C. Hitchcock, 62 B'dway, N.Y.
Silver Series		1,000,000	Lander Co., Nevada	W. B. Rogers, 117 B'way, N. Y.
South Boise, T Co	200,000	2,000,000	Alturas Co., Idaho	A. M. Palmer, 19 Broad st., N. Y
Star Hill	20,000	1,000,000	Nevada	155 B'way.
St'h Cl' Cr'k			Colorado	Canastota, New York.
Stephenson	500,000	1,000,000	18 m E of Ft. Fillmore	A. S. Kellogg, 22 Pine, New York.
Steptoe	20,000	2,000,000	Gold Can. Lander Co. Nev	10 Pine, New York.
Sterling City		1,200,000		New York.
Tarshish	12,000	1,200,000	Toryabee Range, Un. D., Nev	H. S. M'Collum, 78 B'way, N Y
Tempest	200,000	1,000,000		L. Bangs, 17 Nassau, N. Y.
Trumbo			San Antonio, Lo'wr Cal	San Francisco.
Tolyabee	50,000	5,000,000	Pine N'd, Mo'tn Dis, Nev	J. M. Brown, 157 B'wy, N. Y
Union & El D'o	100,000	1,000,000	Mogul Silver Mo'tn	40 Park Row.
Upper Missouri		100,000	Montana	107 Broadway.
Veldler	21,000	2,100,000	Amador Dist., Nevada	L. G. Bingham, 80 B'way, N.Y.
Wamba Yuma	600,000	6,000,000	Arizona	35 William street, New York.
War Eagle	50,000	200,000	Owyhee Co., Idaho	G. M. Eldridge, 144 S. 4th, Pl.
Washington	22,500	2,250,000	Austin, Nevada	S. R. Hutchinson, 80 B'way, N.Y
White Mountain			New Hampshire	111 Broadway, New York.

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Douglas,	20,000	500,000	E ½ Sec. 30, T. 55, R. 3,	S. J. Edwards, William St., N. Y.
Dudley,				H. Bigelow 43, City Ex., Boston.
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Ely,	00,000	500,000	325 A., Richmond, Canada East,	Ernest Sacchi, 82 B'way, N. Y.
Empire,	20,000	500,000	1798 A., Secs. 1, 2, 11, 12, T. 58, N. K. 28, W. K'w'n co., Min.,	J. S. McMullin, 423 Walnut, Phil.
Eureka,	20,000	500,000	W ½ Sec. 2, T. 49, N. R. 41, W. Ontonagon co.,	H. Shirley, 137 B'way, N. Y.
Evergreen Bluff,	20,000	500,000	NE¼ Sec. 6, T. 50, R. 38,	F. W. Capen, 44 Ex. Pl., N. Y.
Edwards'Copper	20,000	500,000	Michigan,	H. K. Thomas, 12 Wall, N. Y.
Eagle Harbor,	20,000	500,000	Michigan,	51 Ex. Place, New York.
Frue,	20,000	500,000	Michigan,	A. S. Kellogg, 22 Pine st., N. Y
Flint Steel R.,	20,000	500,000	Sec. 11, 12, T. 50, N. R. 33, W,	F. K. McCully, 137 B'way, N. Y.
Forest City,	20,000	500,000	320 A. NE¼ Sec. 36, and SE¼ Sec. 25, T. 51, R. 43,	J. F. Paul, 19 Phœnix Building, Boston.
Franklin,	20,000	500,000	¼ Sec. 24, T. 55, N. R. 31 W,	C. Emery, 26 Kilby St., Boston.
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French Creek,	00,000	600,000	Chester co., Pennsylvania,	R. Roberts, 19 Nassau St., N. Y.
Garden City,	20,000	500,000	SW¼ Sec. 60, N. W. Sec. 59, T. 58, N. R. 31 W,	R. H. Howe, Chicago.
Girard,	20,000	500,000	600 A. Sec. 15, T. 58, N. R. 28, W. Keweenaw co., Mich.,	B. A. Hoopes, 324 Walnut, Phil.
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Hamilton,	20,000	500,000	SE¼ Sec. 35, S ½ Sec. 36, T. 50, R. 41, SW¼ Sec. 21, R. 20, 14¼ A.,	J. B. Townsend, 44 Exchange, N. Y.
Hancock,	20,000	500,000	SW¼ Sec. 26, Tract of Sec. 25, T. 5, R. 34, W.,	Fred. Beck, 43 City Ex., Boston.
Hanover,	20,000	500,000	Michigan,	do. do. do. do.
Hartford,	20,000	500,000	320 A. E ½ & SE¼ Sec. 32, SW¼ & W ½ Sec. 33, T. 50, R. 40, W,	T. M. Tyng, 61 Cedar St., Boston.
Henwood,			Michigan,	57 Broadway, N. Y.
Hope,	20,000	500,000	240 acres in T 57, R 32, Kw co.	19 Nassau St., New York.
Humboldt,	20,000	500,000	Sec. 21, T. 58, R, 31, W,	Hor. Bigelow, 43 City Ex., B'st'n.
Huron,	20,000	500,000	Sec. 2, T. 54, R. 34, W,	Hor. Bigelow, 43 City Ex., B'st'n.
Hilton,	20,000	500,000	Michigan,	W. H. Smith, 51 Ex. Place, N. Y.
Indiana Copper,	20,000	500,000	Michigan,	25 Nassau st.
Isle Royale,	20,000	1,000,000	NW¼ Sec. 1, T. 54, R. 34, W,	F. W. Chapen, 33 Ex. Pl., Boston.
Keweenaw,	20,000	500,000	Michigan,	F. W. Chapen, 44 Ex. Pl., Boston.
Knowlton,	20,000	500,000	SE¼ Sec. 1, W ½ of SW¼ Sec. 1, and other lands,	44 Ex. Pl., N. Y.
Lafayette,	20,000	500,000	Secs. 25, 30, 36, T. 51, N. R. 43, and 44, W, Ontonagon,	P. C. Blancan, 35 Wall St., N. Y.
Lyster,	200,000	$400,000	Township Nelson, Canada East,	H. W. Nelson 24 City Ex., B'st'n
Lower California	40,000	2,000,000	N. part of Lower California,	55 William St., N. Y.
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Merryweather,	20,000	500,000	Secs. 9, 19, T. 48, N. R. 4, W,	J. T. Waters, New York.
Mandan,	20,000	500,000	680 A. Secs. 8, 17, 19, 30, T. 58, N. R. 29, W., Keweenaw co., Min.,	B. A. Hoopes, 324 Walnut, Phil
Manhattan,	20,000	500,000	W ½ Sec. 11, NW¼ Sec. 14, T. T. 58, N. R. 32, W, 360 A.	J. W. Davies, 21 Nassau St., N Y
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Merrimac,	20,000	500,000	NW¼ Sec. 34, T. 51, R. 38, W, Ontonagon,	J. M. Cooper, Pittsburgh.
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N. Y. & Passaic,	100,000		Harrison, Bergen c.,	T. H. Belt, Jo, do. do.
New Devon,				17 William St., N. Y.
North Western,	20,000	300,000	W ½ Secs. 24, 25, 26, E ½ Secs. 36, 35, T. 58, N.R. 31,	J. M. Cooper, Boston and Detroit.
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Penn. Manuf'g.,	20,000	1,000,000	4.320 A. Secs. 13, 14, 15, 24,	
Petherick,	20,000	500,000	Michigan,	Boston,
Phenix,	20,000	500,000	Michigan, ½ Secs. 10, 11, 12, 23, 25, T 58, N. R. 30, W,	Boston, S. M. Day, 326 Walnut St., Phil.
Pewabic,	20,000	500,000	W ½ Sec. 25, T. 55, N.R. 34, W.	C. Emery, 39 State, Boston.
Pitts. & Boston,	20,000	150,000	Ts. 58, 57, N. R. 31, 32, W. 12 495 A.	H. A. Johnston, Pittsburgh.
Pontiac,	20,000	500,000	SE¼ Sec. 13, T. 55, N. S. 31, W.	C. Emery, Kilbey St., Boston.
Prescott,	100,000	1,000,000	Central Arizona,	69 Broadway, N. Y.
Providence,	20,000	500,000	240 A. in Keweenah co., NW¼ Sec. 10, W ½ NW¼ Sec. 10, T. 57, R. 32, W,	J. W. Davis, 21 Nassau St., N. Y.
Phila. & Boston,	20,000	500,000	640 A. Sec. 14, T. 58, N. R. 28, W. Keweenaw co., Mich.	J. S. McMullin, 423 Walnut St., Boston.
Quincy,	20,000	500,000	Sec. 26, T. 54, N. R. 34, W,	W. H. Smith, 51 Ex. Pl., N. Y.
Republic,	8,000	200,000		H. Baldwin, 70 Wall St., N. Y.
Reliance,	20,000	500,000	Secs. 21, 22, 27, T. 58, N. R. 28, W, 10,785 A.	H. K. Thomas, 11 Wall St., N. Y
Rochester,	200,000	500,000		J. A. Ferguson, 8 Wall St., N. Y
Rhodo Island,	20,000	500,000	Michigan,	New York,
Ridge,	20,000	500,000	Sec. 35, T. 51, R. 38, W,	51 Exchange Place, N. Y.
Rockland,	20,000	500,000	Sec. 11, T. 59, R. 39,	S. J. W. Barry, 71 B'way, N.Y.
Resolute,	20,000	500,000	1.120 A. Secs. 7, 18, 19, T. 58, N. R. 29, W. Keweenaw co., Mich.,	
St. Mary,	20,000	500,000		F. Beck, 45 City Ex., Boston.
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Sheldon & Col.,	20,000	500,000	SE¼ Sec. 36, T. 55, R. 34, W,	S. J. Edwards, 22 W'm. St., N. Y
South Side,			SE¼ Sec. 34, T. 55, R. 34, W, T. 58, 59, N. R. 28, 30 W,	H. W. Nelson, Boston. Copper Harbor.
Societe Fran'se,	10,000			
Superior,	20,000	500,000	W ½ Sec. 14, T. 50, N.R. 39, W.	S. J. W. Barry, 12 Pine St., N. Y
Toltec Consol.,	20,000	500,000	Secs. 25, 26, R. 50, R. 36, Wisconsin,	H. W. Nelson, Boston. 17 William St., N. Y.
Ural,	20,000	500,000	1.120 A. Secs. 7, 17, 18, T. 58, N.R. 27, W. Keweenaw co.,	F. K. Womrath, 324 Walnut, Phil
Vulcan,	20,000	500,000	Secs. 20, 29, 30, 34, 34, T. 50, R. 39, and other lands,	L. W. Clarke, Boston.
Victoria,	20,000	500,000	Secs. 17, 18, 19, T. 50, N. R. 39, W,	C. T. Howard, Boston.
W. Minnesota,	20,000	500,000	Massachusetts,	G. A. Sneden, 12 PineSt., N. Y
Wickopee,	100,000	500,000	W. Fairlee, Orange co., Vt.,	191 B'way, N. Y.
Vermont,	100,000	500,000	Arizona,	35 William St., N. Y
Wauia Yuma,	600,000	6,000,000	Michigan,	Boston
Winthrop,	20,000	500,000		

S, means section; T, townsip, R range.

AMERICAN
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[ILLUSTRATED.]

GEORGE FRANCIS DAWSON,
EDITOR

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NEW YORK, SATURDAY, NOVEMBER 17.

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MINING SUMMARY.—News from Colorado, Nevada, Virginia, California, Tennessee, Montana, Idaho, Pennsylvania, Missouri, Michigan, New Mexico, Georgia, Canada, etc.
MISCELLANEOUS.—An Indigo Mine in Colorado—A British Oil Distilling Invention—New and Cheap Process of Making Wrought Iron—Peat in Italy—Antediluvian Remains in New York—The Iron Works of Chicago—French Marble.
POETRY.—True Gold.
SPECIAL SCIENTIFIC BREVITIES.
MINERAL AND OTHER OIL-PITS.
ALL SORTS.
MINING COMPANY MEETINGS—DIVIDENDS.
PATENT CLAIMS.—Important to Mill Men, Miners, Metallurgists, Oil Men, etc.
TABULAR MATTER.—Gold, Copper, Lead and Silver Mining Companies; Names, No. of Shares, Capital Stock, Situation of Mine, Name of Secretary and Place of Business.
MARKET REVIEW.—Mining and Petroleum Stocks, Finances, Stocks, Metals, etc.
THE COAL TRADE.—Quotations, Shipments, Freights, Cargo Rates, Weekly Coal Trade Circular.
FOREIGN MARKET REVIEW—Metals, etc.
NEVADA STOCKS.—Latest advices by Telegraph.
NEW YORK METAL MARKET.

A WORD OR TWO TO THE NEW YORK MINING STOCK BOARD.

We have recently endeavored to defend New York against sweeping charges made by the press of other large American cities—cities which contain quite as much bad and good, as this—yet we are quite willing to admit that New York has its full share of wickedness; and while there is quite enough to blush for in all businesses—from that of Victor Hugo's boot-black, who trained a mud-covered dog to dash across and soil the passers' boots, to that of the white-cravated parson, who picks people's pockets in omnibuses, or who, arrogating to himself the sacred name and functions of ambassador from God, preaches repentance unto others, while sin reigns in his own heart—yet there is at the present time a little *more* than enough in that of buying and selling mining stocks in this city. We have often heard of Stock Boards being "used," but never of a meaner and more contemptible "use" to which the New York Mining Stock Board has recently been put, in the case of the Downieville Gold Company, the sudden collapse of which was alluded to in our last week's market review. Whether there is a mine or not at the bottom of this company we do not pretend to say, but it is very certain that the stock which not long ago was worth ostensibly but a few cents, and for aught we know, might be intrinsically valueless, was bulled up to several dollars per share, by hiring a number of brokers to bid in all they could get at any price, and supplying to other brokers a quantity of the stock not to be sold below certain limits. Thus the company having pretty much all the stock in its own hands, could make it rise to almost any fancy figure; and thus the public were hoaxed, many persons were swindled, and the Mining Board was disgraced. Such a condition of things we consider absolutely shameful. Is it not possible, by the exercise of more caution in placing stocks on the list, and by demanding guarantees from the companies whose stock is quoted, as well as from the brokers admitted to membership—is it not possible in *some* manner to prevent such doings? It seems to us that the least the Board can do is to order a thorough investigation of the matter and ascertain who are the guilty parties, and if it can reach them, punish them. If the company is to blame, strike its name from the list; if any of the ten or dozen brokers, who acted either as principals or puppets, were cognizant of the swindle, expel them. The public naturally feel indignant that such doings should be tolerated by a respectable organized body of brokers, and the Board should spare no effort to vindicate its past and provide for its future reputation. Let the axe fall upon the necks of the guilty.

THE "JOURNAL OF MINING" VINDICATED—AN ASSAILANT BACKING DOWN.

Some time ago, in the course of an article upon cheap processes, we stated that hard auriferous quartz containing less than $6 or $8 per ton could not at present be worked with profit in California, while in Australia $2 rock was worked with a fine margin. Thereupon the San Francisco *Mining Press*—a paper that really *ought* to be well-informed as to the condition of mining in California—declared that California can beat Australia all to pieces, and that there are a fabulous number of quartz mines in the former that yield a mere song (we forget the figure), and yet pay well—all of which we considered ridiculous in the extreme, besides being bad in motive; for it reminded us of the foolish mother, who either never could see that her scrape-grace son did wrong, or if she did, was afraid to say so, and stoutly declared him better than any other living boy. She never could be made to understand that by correcting the faults of the boy, he would become a good man. If California were really ahead of the world in making poor quartz, very gladly would we say so; but we know better, and it seems that such papers as the San Francisco *Bulletin* agree with our view of the case and endorse our suggestion that a commission be sent to Australia, and elsewhere if necessary, to study and report upon the best methods of ore reduction, etc. Among the California papers that have sustained our position, the Havilah *Courier* states that the miners in its neighborhood are afraid to tackle even $10 and $15 rock! To which the *Press* feebly responds:

> We might instance the Adelaide Mine in Mariposa county; the Waters, Union, Patterson, Blue Tent, and perhaps others, in Tuolumne county; Soggs' mine in Nevada; Perrin's mine in Grass Valley, and the Eureka mine in Plumas county, as among those which are worked to a profit with a yield *not exceeding eight dollars per ton*. No doubt there are a great number of others to which reference might be made if we had the statistics at hand.

We have just two observations to make right here. One is that the above yields, which are instanced as the lowest—for if they were lower would they not be mentioned?—triumphantly affirm the truth of our statement. The other is that *it is a pity* our contemporary is not able to procure the statistics of the "great number of others."

The Meteoric Shower.

Astronomy and metallurgy are generally considered pretty far apart; and perhaps it takes a remarkable event like that of which we are writing, to bring them so closely together as to enable the JOURNAL OF MINING with propriety to refer at all to a subject that is popularly considered the sole property of astronomers. We allude to meteors—and when it is remembered that these phenomena often deposit large lumps of what is called meteoric-iron upon this planet, few, indeed, will question our right to speak of the iron-producing bodies of heaven as well as the gold-producing bodies of earth. Besides, anger often oversteps the limits of propriety, and we feel angry with the astronomers for being so sadly out of their calculations. For once, if not twice, astronomy—no, not the science but the faculty professing to interpret it—has been at fault. The grand display of firmamental pyrotechnics, advertised to take place on the nights of the 13th and 14th insts. in America, took place in Europe instead! reminding one of those other erratic "stars" who seem to make a point of never meeting the engagements for which they are billed in interior towns. Furthermore, the display that *did* come off, didn't amount to much—a mere matter of 12,000 or more instead of the "countless myriads" that it was prognosticated would shower upon the whole horizon. Of those that did come, belted Orion seems to have thrown forth many, but Leo very properly the lion's share. The few that were seen in this country had blue trains of light; the few thousands seen in Europe had vari-colored trains. We didn't bargain for a blue-light show—and are so disgusted, that we drop the subject as we would a piece of red-hot meteoric iron.

Proposed Resumption of Specie Payments.

Washington correspondence announces that Secretary McCullough, in his forthcoming report to Congress, will take strong ground in favor of an early resumption of specie payments. In our judgment the Secretary had better not trouble his head any more on that subject. He has already made several efforts in that direction, and signally failed—for the simple reason that Wall street is altogether too smart for him. The country is getting along very nicely, and under the circumstances—with $100,000,000 gold on hand, and nearly $400,000,000 gold coming in annually, which will extinguish the debt quite soon enough without any additional fiscal legislation—it is advisable to "let well enough alone."

MEETINGS.

Pioneer and Inskip Mill and Mining Company, at No. 8 Pine street, room 2, election of directors, and transaction of other business; Victoria Lead Mining Company, at 24 Broad street, room 8, Nov. 29; Glade Mining Company, at 36 Wall street, room 4, Nov. 23, 12 M.; Pacific Coal Company, 38 Broad street, Nov. 24; Independent Oil Company, annual, at 389 Broadway, Nov. 13, 4 P.M.; Hoffman Petroleum Company, at 8 Pine street, Nov. 19; Bennehoff Run Petroleum Company, 31 Nassau street, Dec. 10, 1 P.M.

DIVIDENDS.

Hale and Norcross, $100 per foot; Savage, $75 per foot; Yellow Jacket, $50 per foot; Crown Point, $50 per foot; Imperial, $8 per share; Dennis Run and New York Oil Company, 25 Nassau street, 2 per cent., on demand; Clarion and Cherry Run Oil Company, 146 South Fourth street, Philadelphia, 5 per cent., on demand; De Soto Oil Company, Rochester, N. Y., 1½ per cent

ASSESSMENTS.

Amygdaloid Copper Mining Company, Boston, Mass., $4 per share on capital stock ($80,000).

ORGANIZATIONS.

The Mendota and Meteor Copper Company, and the Lac La Belle Harbor Improvement Company, all of Boston, have been consolidated under the name of the Mendota Land and Mining Company; the Calumet Train Company, capital stock, $200,000, Julius B. Row, President, has been organized for the purpose of operating a tram railway from the Calumet Copper Mine to the head of Torch Lake, five miles distant.

Scientific Meetings.

POLYTECHNIC BRANCH OF AMERICAN INSTITUTE.

REED'S PROPOSED ENGINE—STEAM JIB PROPELLER—DR. VAN DER WEDE ON ILLUMINATION AND ON LUBRICATION—IS PETROLEUM LIABLE TO CAUSE SPONTANEOUS COMBUSTION?

At the meeting of this Society, on Monday evening, Mr. Reed again brought forward his proposed engine, and exhibited drawings and calculations showing the intended construction and the advantages he hoped would be derived from it. His theory is that if a certain quantity of steam raises the piston, loaded with a ton weight, to a certain point, and the steam is then shut off from returning, and the weight is reduced to half a ton, the piston will rise to another certain distance, leaving a large profit from the use of otherwise wasted steam, after allowing for extra condensation and friction. Dr. Rowell denied this theory, stating that it had never been tested, and that after the steam had lifted the first weight it was practically valueless. A discussion ensued which did not appear to keep to the point in question. Mr. Fisher stated that the steam jib propeller, which he had been ridiculed in the Institute for supporting, was recently tried in England with great success. Dr. Van der Wede proceeded with his illustrations of the subject of illumination. Since the last meeting he has been experimenting on the heating power of the blue flame of a lamp, as compared with the white or yellow flame. He finds that most decidedly light is obtained at the expense of heat, and *vice versa*. On holding a pound of water at the distance of a foot over the yellow flame of a lamp, it boiled in thirty-five minutes on an average, but over the blue flame it boiled in nineteen minutes—the same quantity of gas being used in both cases. He next exhibited a new lamp, which consumes a new gaseous oil, one of the early products of the distillation of petroleum, which indeed flows off to a great extent, under the ordinary temperature, at the oil wells, and is there wasted. This new lamp is filled with sawdust, which imbibes the oil, and when the mouth-piece is warmed the gas evolves, and on being lighted burns with a clear light. The lamp can be filled while burning. No wick is used, and the oil is thirty per cent. cheaper than coal oil. The cans which contain the oil are, like the lamps, freed from the liability to explosion, by the use of wire gauze protectors, which prevent the descent of the light into the can or lamp. He also gave out samples of his new lubricator, prepared from petroleum, which he states will not freeze even when exposed to a temperature of 39° below zero; nor will it dry, neither has it been treated with acid nor distilled. It will, he states, shortly be in the market at one dollar and a half per gallon, which is one half the price of sperm oil. He had experimented upon lubricators for the whole year past, and especially had examined that best of lubricating fluids which is contained in the fluid and membranes connected with the human joints. He considers that ordinary petroleum solidified under the influence of the atmosphere, and that the fact that from shallow wells in Virginia heavy petroleum was pumped, while from deep ones light oil was taken, is proof that the oil means the atmosphere solidified. Dr. Stevens denied the possibility of the air acting at such a distance under the surface of the earth. The discussion between himself and Dr. Hirsh then commenced. The Chairman said that it would be advisable to keep it as much as possible to the point, as to whether petroleum is or is not liable to spontaneous combustion when spilled among rags, etc. It was the opinion of the meeting that Dr. Hirsh should not be interrupted in his statements, and that the meeting should adjourn, Dr. H. having the floor at next meeting. Mr. Page stated that he had brought a collection of the natural products of petroleum, from liquid oil to anthracite, and that he would exhibit them at the next meeting if present.

The meeting then adjourned, the Chairman advising that, although the little personalities of the discussion might give life to the meetings, they must of course be taken in a Pickwickian sense, and not considered as personally offensive.

Original Papers.

[WRITTEN FOR THE JOURNAL OF MINING.]

MINERALOGICAL SKETCHES OF THE COUNTIES IN SCOTLAND—No. 2.

By H. Dussauce, Prof. Ind. Chemistry to the French Polytechnic; Chemist to the French Imperial Laboratories, etc., etc.

Banffshire.—Great part of Banff is bleak and desolate, with fine glens between the mountains; granite, clayslate, freestone and limestone, pretty abundant, the latter of little use for want of coal, which is nowhere found in the county. Partsoy is a favorite route with mineralogists. It furnishes quartz, talc, amianthus, hornblende, slate, hypersthene, schiller spar, chromate of iron, steatite, beautiful marble, and serpentine, which is worked into ornaments and was once highly prized even on the continent. At Cairngorm, a part of which is in Banff, are found rutile, shorl, quartz, asbestos, etc., and andalusite at McDuff.

Berwickshire.—This is not a mineral county. Limestone, freestone, whin and marl, are found in nearly every parish. A little coal is found at Murdington, and worthy of working at Lamberton; small quantities of quicksilver in Berwick town; gypsum in Chirnside; trap, porphyry, and quartz veins at Dodmill. Near Lauder in Lammermoor and in Bonkle are indications of copper; basalt at Lurgie craigs. The hills in this county generally slope to the South, but are steep to the North, being composed of schistus or schistose clay, with whin nodules and quartz veins; breccia and pudding stone found to Northeast of Eyemouth Bay, in which are nodules of whin, and shistus in a steatitic clay.

Buteshire.—Although this county contains only two large islands and a few small ones, yet it is the most interesting county in Great Britain for its geology, and will require a larger space for description than others larger in size. The north end of Bute Island consists of mica, clay, and chlorite slates—the micaceous schistus being on a line with that rock in Arran, and Kintyre is supposed to have been once connected with it. These strata are traversed by trap veins. The slate is wrought at Kaims Castle. From Rothsay Bay to Kilchattan across the island, are fluety red sandstone with trap veins. The north side of Rothsay Bay is slate. From Kilchattan to Garrock Head is wholly trap; coal is not yet found; lime, beds of sea shell, etc., are abundant. There is a vitrified font in Kingarth parish. In describing Arran we can give only the prominent localities. For minute information we refer the reader to Dr. McCulloch's work on the Western Islands, in which are sections of the strata of Bute and Arran. Granite with rock crystal, veins of quartz and small-grained granite, occur at Goatfell, Glenrosa, Gleniorsa, and almost everywhere in the north or granite division of the island. Gneiss succeeds the granite, in the same place, except on the north side of Tarnidneon and south side of Glencatacol, where the granite and mica slate are seen to unite. Micaceous schistus generally cover the gneiss, these with pudding stone over micaceous schistus are pure and abundant at Gleniorsa, and to the west of it down to the shore. Quartz occurs in beds in micaceous schistus and clay slate, often in veins, and in all states of crystallization, on the north side of Ciemna-Ceillich. Greenstone (not in beds) occurs in Glenrosa; sandstone, resting on clay-slate, everywhere on the east, south and west sides of the island. Columnar sandstone (a rare occurrence) is met with at East Corygills, with puddling stone at Jarsa shore; common at Lambash, Kildonan, Struey, Southend, Curie, and round the shore of the island. Trap occurs in abundance from Genluig to Shiskin, at Clachland Point, Lamlash and Plada. Basaltic columns occur in Lamlash Island, and with trap veins in the south of Arran. Plada is basaltic, resting on sandstone superincumbent on limestone. At Stuey is a basaltic cave eighty feet high, forty feet broad and one hundred feet long. Limestone with shells at Brodick, with madrep ores at Laggan; they estimate six varieties at Currie where it is shipped for Glasgow and Greenock. The tourist will find many good specimens at Lambash, Benbester, Strathgael and Clachan Glen. Breccia and pudding-stone are abundant with trap veins in Glencloy, Carrygills and Alcrappoch four miles from Lambash. At Laggantiune, above Currie, is a pudding-stone vein in granite. On the south side of Arran pitchstone is abundant and of different colors at Brodick, Glencloy, East Carygills, Dunfion, Kildonan, &c., and pearlstone has been found along with it. The pitchstone near Lambash is of a beautiful green color. Bituminous shale occurs at Currie; columnar clay, ironstone (rare) at Currie. Columnar and tabular porphyry, slate, at Lambash, Glencloy and Dunfion. Granite porphyry at Strathgael. Basaltic porphyry at Drumodoon, King's Cave, Clachan Glen; in beds on the south, and in veins on the north end of the island. These are the principal geological features of Arran. The simple minerals are not less numerous. Many of them are valuable, but the chance of finding them must depend on the good luck or perseverance of the mineralogist. The best are tremolite, in Lambash; teolite, at Dipping Rocks; stalagmites and petrifactions at Auchisehem Burn; heavy spar intersecting puddling stone, of South Sannose. Iron pyrites occur at Brownhills and Scordell; silicious spar, at Tundergag; jasper, agate and flint, at Brownhills. Hornstone is often found in the limestone, and steatite in the trap rocks. Beautiful crystals of felspar, black, yellow, smoke-colored, and pure rock crystal, adulariæ, talc, indurated clay, chalk and clay marl, occur in the island, but of which scarcely any fixed locality can be given. Pistacite and hornblende is found in the greenstone and clay slate. Near Brownhills are several Druidic remains; at King's Cave is Fingal's Cave, where Robert Bruce concealed himself before his final and successful attempt upon Scotland. A person with a little time to spare and wishing to examine the island for himself, will find the north more easily examined than the south end of the island. There the primitive strata are much exposed and their disposition is readily seen, consisting of granite, gneiss, slate, sandstone and ironstone. From Brodick Bay on the east, towards the south, and round by the west end of the island, basalt, pitchstone, sandstone, porphyry and limestone, abound to the satisfaction of the most enthusiastic geologist.

[TO BE CONTINUED.]

[WRITTEN FOR THE JOURNAL OF MINING.]

THE ELECTRO-POSITIVE METALS—No. 3.

POTASSIUM—ITS PREPARATION.

By Joseph Hirsh, Ph. Dr.

The chemical process by which the reduction of potassium by Brunner's method takes place, is complicated, and has not yet been fully studied. The smaller proportion of potassium is produced in a metallic state, while the greater part enters into the black amorphous mass referred to. In some cases of obstructions of the condenser by this mass, an iron rod is sufficient for its removal. Then, of course, the fire has to be withdrawn, and after some cooling the mass is removed with a sharpened drill, dipped into petroleum. Great care then has to be taken to prevent the access of moisture to the interior of the retort, as this frequently has produced violent explosions—throwing the burning mass about. After clearing the condenser, the operation may be continued until the evolution of gas ceases, which shows the completion of the operation. The retort then is empty, or contains merely an excess of coal or potash, besides small quantities of the sulphurets of potassium and calcium, cyanide and chloride of potassium, all of which are introduced as impurities with the raw material, and are not changed by the process. The potassium is found in the receiver (filled with petroleum) in balls of metallic, lead-gray appearance, intermingled with the black, amorphous mass. For the removal of the latter the metal is placed into a linen bag, dipped in petroleum, heated to 150° F., and is then pressed through the linen; it appears in white metallic drops, which unite, like mercury, and are redistilled in an iron retort, in order to remove a trace of carbon still adhering to the metal. The retort has to be filled with petroleum before introduction of the metal. The

condensing tube from the retort dips into the petroleum contained in the receiver. Frequent shaking of the condenser facilitates the removal of small quantities of metal adhering to its sides. The residue in the retort is black, porous, and develops, in contact with water, a hydrocarbonate olefiant gas. A great deal of the potassium contained in the burnt tartar escapes during its preparation with the gas, which burns with a white flame, streaked red, depositing a greenish white or black substance, which becomes green, exposed to the atmosphere, and ignites, while it becomes red, in contact with water. The low price of the raw material renders its use economical, in spite of the great loss of metal sustained in the escape of the gas just referred to. The red substance, deposited by the gas in water, is rhodizate of potash, discovered by Gruelin It may also be prepared from the black material coming over with the metallic potassium. It is of considerable interest, as it throws some light on the reduction of potassium by charcoal, but hardly belongs within the scope of this paper. Other improved methods for the production of potassium were found, which were also applied to the reduction of sodium, and lately were almost exclusively confined to the last named metal, because the raw material for its production is more abundant and cheaper than that for potassium. I shall therefore reserve their description for the treatise on sodium, which, in the metallic state, is now almost always used where formerly potassium was employed, as it possesses the advantage of a lower price.

[TO BE CONTINUED.]

[WRITTEN FOR THE JOURNAL OF MINING.]

THE NOBLE METALS.

By FRANCIS E. ENGELHARDT, Ph. Dr., Professor of Chemistry in St. Francis Xavier's College.

Knowing well the interest most people in this country take in all that pertains to gold and silver, I concluded that a short historical sketch, accompanied by a description of their characteristics, occurrence, production, uses, etc., would be welcome to the general readers of the JOURNAL OF MINING, and therefore have prepared the two following articles. I am well aware that it is impossible in a weekly publication to do full justice to the subject in all its bearings, since the field before me is so large and so much material is on hand. Still I hope that my efforts in collecting from different authors what in my opinion is most important, will prove to be both interesting and instructive to your readers.

GOLD—ITS HISTORY.

When the human family was called into existence, and man after and for his transgressions was commanded by the Almighty to live by the sweat of his brow, he naturally was driven to turn his attention to everything that might assist in accomplishing this end. Of the native metals, it is probable that gold would first come under his observation in Eastern Asia, on account of its beautiful yellow color, and because it is found mixed with the loose soil and the sands of rivers more frequently than any other metal. What time was required after its discovery to develop its applicability to the uses of social life we cannot at this distance of time determine. It is more than probable that its application was very gradual.

In looking over the oldest human records that have been preserved to us from the sacred and profane writings, we find gold among the first mentioned metals. Moses speaking of Abraham, says: "And he was very rich in possessions of gold and silver." And of the land of Havilath, the sacred penman uses the following words when speaking of the rivers which watered the garden of Eden: "The name of the one is Phison, that is it which compasseth all the land of Havilath, where gold groweth, and the gold of that land is very good." Moses must therefore have had not only a knowledge of gold localities, but also a notion as to the quality of the metal. That gold was already in patriarchal times employed for ornaments and vessels is evident from Genesis: "And after that the camels had drunk, the man took out golden earrings, weighing two sicles (shekels), and as many bracelets of ten sicles weight, and bringing forth vessels of silver and gold, and garments, he gave them to Rebecca for a present." The mechanical skill of the Jews in the time of Moses, as shown in the working of gold and silver, was considerable, since we find in the Book of Exodus sufficient proof that Beseleel and other Jews understood not only the melting and casting of gold, but also the setting of stones in gold, the beating and fashioning thereof into plates, cherubim-vessels, candlesticks, bells, wire, chains, breastplates and wreath-work. The amount of gold used for the sanctuary, not including the ornaments of the priests and the sacred vessels, amounted to 20 talents 730 sicles (shekels) of gold and 100 talents of silver (nearly $1,000,000 of our money.) This whole amount was contributed by the men above 20 years of age, and had been borrowed by them from the Egyptians, while the women supplied Aaron with ear-rings in such quantity as to enable him therewith to fashion the golden calf. In what manner Moses burnt the calf by fire and powdered it into dust, we need not here discuss. It is sufficiently evident that gold cannot have been very scarce among the Egyptians, and that the Jews were indebted to them for their skill in its manufacture. It is asserted that the author of the book of Job lived in a country which produced no gold, but this book has several passages which bear upon our subject, and plainly prove that he knew not only how it was produced, but the difference between a purer gold and such an one as contained an admixture of foreign substances, since he says: "Silver hath beginnings of its veins, and gold hath a place wherein it is melted." "That the earth hath dust of gold"—and again, "the finest gold shall not purchase it, neither shall silver be weighed in exchange for it." I could show by a great number of passages that the Jews knew well the difference referred to above, at least I am at a loss to know what otherwise would be indicated by such expressions as "fine gold," "finest gold," "the gold of Ophir," "gold from the North," "gold from Parvaim," etc. It is not improbable that the art of refining gold was early known and practised among the Hebrews, since there are several passages of the old Testament confirming this view. Malachy says: "And He shall sit refining and cleansing, and He shall purify the sons of Levi and shall refine them as gold and silver."—Proverbs, xxvii. v. 21. "As silver is tried in the fining-pot and gold in the furnace."

The Jews, after leaving Egypt, must have accumulated considerable quantities of the precious metals, partly by their conquests, and partly by their commerce which commenced to flourish under King David, and which was much more extended by Solomon. The latter traded especially with the Phenicians, who were at that time in their greatest prosperity. He also collected what was for those times an enormous quantity of the precious metals. He received every year 1,500,000 dollars worth of gold. His fleet went with that of Hiram, King of Tyre, to Ophir (there still exists a doubt where the land of Ophir is situated) and returned every three years, bringing him 420 talents of gold (about 940,000 dollars.) To what use Solomon put his gold is sufficiently known. I will only add that the sanctuary of his temple was covered with gold to the amount of $1,150,000; that in the decorations of his house of the forest of Lebanon and for the vessels thereof, he used gold only, and that according to the inspired writer, he made silver in Jerusalem as stones.

MARKET REVIEW.

FRIDAY EVENING

Gold and Silver Stocks have on the whole declined, although an upward tendency has been observed since Wednesday. Albion, quoted at $6 last Saturday, has risen gradually during the week, and $7 is asked this afternoon; Alpine has declined to $1 25; American Flag, for which $2 50 was asked last Saturday, fell day before yesterday to $1 50, and is quoted to-day at $2 00, $2 75 asked; Atlantic and Pacific, $3 00; Bates and Baxter Gold has fallen from $3 50 to $2 50; Bobtail Gold, $4; Bullion Consolidated at last week's quotations; Burroughs Gold has advanced to 51c.; Church Union Gold steady at last week's quotations; Crozier Gold 50c.; Consolidated Colorado has fallen still lower, and is quoted this afternoon at 8c; the advance on Consolidated Gregory has been checked, and during the week has retrograded, and is closing to-day at $11 05; Corydon, $5 75; Downieville Gold, the failure of which was announced last week, has found buyers during the week at 16 and 20 cents; Gilpin Gold has been more active, and closes to-day at $2 75; Gold Hill, $4, asked; Gunnel Gold, $1 02, with sales; Hibbard Gold and Copper, 95c.; the decline of Holman, noticed last week, continued during the past week, but closed to-day with sales, after call, at 22c@24c.; Hope Gold has fallen to $1; Keystone Silver to 10c., Kipp and Buell touched $1 25 last Wednesday, since then has steadily advanced, and closes to-day with sales at $1 40; La Crosse Gold has advanced to $1 60, with sales; Liebig unchanged; Liberty Gold, 19c.; Montana Gold still lower, closing at 25c.; New York a shade lower, at $1 80; Nye Gold, 11c.; Oak Hill Gold, of Colorado, $1 15; Ohio and Colorado, 40c.; Pah Ranagat Central, unchanged; Pacific Mining Company also; Peoples' Gold of California, quoted with sales at $3 75@$3 85 last week, fell to $1 last Wednesday, closing with sales to-day, after call, at $2 50; Quartz Hill has an upward tendency, closing to-day, with sales, at $1 80; Rocky Mountain Gold still on the decline, closing at $3; Smith and Parmalee, which sold last Friday at $10 95, fell to $9 75 Wednesday, from which quotation it has advanced, closing with sales to-day at $10 25; Texas Gold, quoted last week at 25c., has fallen steadily during the week, closing to-day at 5c., Vanderburg, 75c.

Copper Stocks range as follows: Caledonia, offered last Friday at $1, is held at $12; Canada, 70c.; Central held at $48; Charter Oak, $1; Davidson, $1 10; Evergreen Bluff has declined, being held at $12 75, against $16 last week's quotation; Franklin continues to advance, held at $50; Hilton, $1; Huron, quoted last week at $43, declined during the week, closing to day at $39; Isle Royal touched $6 Wednesday, but was held yesterday at $12; Knowlton, $4 25.

Lead Stocks.—Wallkill has fallen still lower during the past week, closing with sales to-day at $1 75; Tudor, which sold for $2 80 last Tuesday, fell to $2 70 yesterday, and at closing to-day was held at $2 65.

Miscellaneous Stocks.—Colorado G. & S. Ore Separating Co. quiet at last week's quotations, $1 25; Wallace Nickel held at $3 10; Rutland Marble, $30.

Petroleum Stocks are quoted as follows: Bennehoff Run, $5 75; Brooklyn, 30; Buchanan Farm, 10; Contral, $1 50@2; Manhattan, 15@25; N. Y. and Alleghany, $1; Rynd Farm, 25@30; United Petroleum Farms, 20; United States, $5 50@5 75.

Coal Stocks show a decline from last week's quotations.

	Offered.	Asked.
Cumberland Coal, from	66	..
American Coal	71¾	73
Wilkesbarre Coal and Mining	69	70
Spring Mountain	..	84

Government Stocks have declined.	Offered.	Asked.
U. S. 6's, '81	113¾	114
5.20's, '62	109¾	..
10.40's, reg'd	100½	..
7.30's, 1st series	107	..
7.30's, 2d series	..	105¼

Foreign Exchange is dull. Bankers' bills on England, at 60 days, are xuoted at 108½@109¾; Francs, at 60 days, 5.17½@5.15; Berlin, 71½@72½; on Bremen, 70@70½; Frankfort, 41@41½; on Amsterdam, 40½@41.

Gold was 142⅞ at 2 P. M.

Copper.—Ingot remains dull. New Sheathing Yellow Metal steady at previous rates. We note following sales of Ingot: 150,000 lbs. at 29¾ cents for Detroit; 29¼ for Portage Lake and Baltimore; 50,000 lbs. Quincy, 29¾; 55,000 lbs. Detroit, 30½; 50,000 lbs. Portage Lake, for delivery December 10, 31; and 50,000 lbs. Baltimore, for December delivery, 31.

Iron.—Scotch Pig is in short supply. The market is firm, and we note sales: 200 tons Glengarnock, at $53, ex ship; 250 do., to arrive, part $50; and 250 do, also to arrive, at a gold price, for delivery in all December. American is still offered sparingly, and held firmly; the sales are 100 tons No. 2, at $47, at E. Port; 350 do. Gray Forge, at Po'keepsie, and 400 do. Columbia, at Hudson. There is more demand for Bar Iron.

Steel.—There is no change to report.

Tin.—There is more demand for Pig, chiefly Straights, but no change in prices. Sales of 400 slabs Straights, at 21 cents; 200 do. Malacca, 21½; and 50 do. Banca, 23½; English, 21¾, gold; Plates are in fair jobbing demand, $9 75 for I.C. Charcoal.

Lead.—Pig is quiet. We notice sales of 100 tons ordinary foreign, 6¾c. gold; Bar, 10¾c; and Sheet and Pine, 11¼c., cash.

Spelter is quiet; 30 tons Silesian sold at 6c.@6¼c., gold; Lehigh is very scarce, and commands 11½c., currency,

Petroleum is dull but firm. We quote Crude, 40@47 gr., in bulk, 16c.; do. in barrels, 22½c.@23c.; Refined 110 degrees test, light straw, 31c.@32½c; do. light straw to white, 34c.@35½c.; do. prime light straw to white, 36c.@36½c.; do. standard white, 37c.@37½c.; do. prime white, 38½c.

RECEIVED AT NEW YORK SINCE 1ST JANUARY:

1866.....bbls. 934.484 | 1865.....bbls. 495.246

EXPORTED SAME TIME:

	1866.	1865.
From New York	galls. 29.392,893	11,551.988
Other Ports	" 26,455,887	10.167,986
Total	galls. 55.848,780	21,719.974
Same time 1864	galls	28,702.866
" " 1863	"	24.397,819

Gunpowder.—Blasting (A). per keg of 25 lbs., $5; Mining, $5 50; Rifle, $7 50.

THE COAL TRADE

FRIDAY EVENING, Nov. 16, 1866.

Wholesale.—Since our last report, contrary to universal anticipation, trade has been terribly dull—nothing doing at all. The old Trinity Building has been more like a Church than an Exchange. There will undoubtedly be a reaction next week.

Retail.—The unprecedented mildness of this mid-November weather, makes the retail trade dull for the season. The first cold snap—which can hardly fail to come next week—will make the coal rattle again.

Reports of the Coal Traffic for the Last Week

as compared with those of the corresponding week last year, are as follows:

	1865. WEEK.	1865. TOTAL.	1866. WEEK.	1866. TOTAL.	INC. & DEC
Phil. & Reading R.R.	70,154	2,682,749	73,686	3,310,917	*i* 628,168
Schuylkill Canal	39,513	907,039	33,904	1,198,853	*i* 291,814
Lehigh Val. R. R.	35,128	1,307,857	36,832	1,636,614	*i* 328,758
Lehigh Canal	30,980	790,422	37,319	981,035	*i* 190,614
Scranton North	11,054	200,735	9,644	373,632	*i* 172,897
Scranton South	22,551	595,001	20,972	928,706	*i* 333,705
Penn'a. Coal Co. Rail	16,592	442,688	17,946	408,610	*d* 24,078
by Canal	3,168	39,191	718	23,960	*d* 15,231
Del & Hudson	27,810	633,107	30,250	1,190,644	*i* 557,537
Wyoming North	.....	.....	.....	97,708	*i* 97,708
Wyoming South	.....	286,665	12,959	423,338	*i* 146,673
Shamokin	5,760	391,996	4,605	471,986	*i* 79,990
Trevorton	620	19,987	1,264	45,901	*i* 25,914
Short Mountain	3,613	63,411	3,671	86,730	*i* 23,319
Franklin	2,369	52,593	.....	32,747	*i* 19,846
Broad Top	7,227	274,956	4,169	238,756	*d* 36,110
	276,519	8,688,397	277,939	11460137	.....
	.....	.....	.....	8,688,397	.....
Increase	.....	.....	.....	2,771,740	.....
Decrease	.....	.....	.....	.....	.....

Prices of Coal by the Cargo.

At New York, Nov. 16, 1866

Schuylkill Red Ash by Boat Load	$7 00@	$7 50
" Chestnut, " "	4 50	5 25
" White Ash Lump	6 25	6 75
" Steamboat	6 25	6 75
" Broken	6 25	7 00
" Egg	6 50	7 00
" Stove	6 50	7 00
" Chestnut	4 75	5 50
Lehigh White Ash Lump	6 50	7 00
" Broken	6 50	....
" Egg	6 50	....
" Stove	7 00	....
" Chestnut	5 50	....
Western Virginia Gas Coal	10 00	....
Westmoreland Gas Coal	10 00	....
Blossburg & Fall Creek	7 25	7 40

At Philadelphia, Nov. 16, 1866.

Schuylkill Red Ash Prepared	$5 50@	$6 00
" Chestnut	4 00	....
" White Ash Lump and Steamboat	5 00	....
" Broken	5 00	....
" Egg and Stove	5 25	....
" Chestnut	4 00	....
Locust Mt. Lump, and Steamboat	5 25	....
" Broken	5 25	....
" Prepared	5 50	....
" Chestnut	4 25	....
Lorberry Coal	5 75	....
Shamokin	5 75	....
Franklin, (Lykens Valley)	6 25	....
Broad Top	5 50	....

Scranton Coal at Elizabethport.

Lump	$5 25@	— —
Steamer	6 75	— —
Grate	6 00	— —
Egg	6 00	— —
Stove	5 75	— —
Chestnut	4 75	— —

Prices for Pittston Coal at Newburgh.

Lump, per ton of 2240 lbs	$6 25	....
Steamer, " " "	6 35	....
Grate " " "	6 40	....
Egg " " "	6 50	....
Stove " " "	6 75	....
Chesnut " " "	5 00	....

70 cents per ton additional for delivery at N. York

Lehigh Coal at Elizabethport.

Lump	6 75@	$7 00
Steamboat and Broken	6 50	— —
Egg	6 50	— —
Chestnut	5 50	6 00
Stove	....	7 00

George's Creek and Cumberland Coal.

Run of mine, f. o. b. at Locust Point	$5 75@	....
At Georgetown	5 50	....

At Baltimore, Nov. 16, 1866.

Wilkesbarre & Pittston W. A., wholesale	$7 50@	$7 75
" " " retail	8 50	8 75
Lykens Valley & Sunbury R. A., wholesale	7 50	7 75
" " " retail	8 50	8 75

Prices of Foreign Coals.

[REPORTED FOR THE JOURNAL OF MINING.]
BY H. L. PARMELEE & BRO., 32 Pine street, N. Y.
Duty $1.25 per ton.

Liverpool Gas Caking	$10 75
" " Cannel	15 50
" House "	18 00
" " Orrel	16 00

Per ton 2240 lbs.
PRICES FROM YARD:

Liverpool Orrell, screened	20 00
" Cannel, "	22 00

per ton 2000 lbs. delivered.

Prices of Provincial Coals.

[REPORTED FOR THE JOURNAL OF MINING.]
BY LOUIS J. BELLONI, JR., 43 Pine street, N. Y.
Duty $1.25 per ton.

Block House (on board)	$1 75 gold.
Gownle	1 75 "
Lingan	1 75 "
Sidney	2 25 "
Pictou	2 25 "
Glace Bay	1 75 "
International Co.'s	1 75 "
Slack Coal	75 "

Coal Freights.

Canal Expenses from Mauch Chunk to N. Y.

Lehigh Canal (net)	58
Delaware Division Canal	42
Delaware & Raritan Canal	50
Towage, New Brunswick to New York	25
Freight, Mauch Chunk to New York	$1 55
Total	$3 30

Freights on Coal to Elizabethport.

L. V. R. R. from Mauch Chunk to Easton	$1 15
C. R. R. of N. J., Easton to Elizabethport	1 70
	2 85
Shipping expenses at Elizabethport	25
Total	$3 10

Via Morris Canal.

Lehigh Canal	58
Morris "	90
Towage	12½
Freight	$1 80
Total	$3 40½

Expenses from Mauch Chunk to Jersey City for Reshipment.

Lehigh tolls (net)	— 58
Morris tolls	— 75
Freights	1 75
Reshipping	— 30
Total	$3 38

From Port Richmond, Philadelphia.

Reported by the Coal Exchange, Nov. 16.

Albany (& towing)	$1 70@	— —	Newburg	$1 65@	— —
Alexandria	1 55	— —	Newburyport	2 40	— —
Appanoag	2 00	— —	New Haven	2 00	— —
Aspinwall	7 00	— —	New London	2 05	— —
Bangor	2 00	— —	Newport	1 90	— —
Bath	2 40	— —	Newport, R. I.	1 90	— —
Baker's Landing	—	— —	New York	1 60	— —
Bedford	—	— —	Norfolk	1 62	— —
Boston	3 00	— —	Norwalk	....	— —
Bridgeport	1 80	— —	Norwich	2 20	— —
Bristol	1 90	— —	Pawtucket & tow'g	2 25	— —
Cambridgeport	2 40	— —	Petersburg	2 00	— —
Catskill (& tow)	2 00	— —	Portland	4 00	— —
Charleston, S. C.	2 25	— —	Portsmouth, N. H.	2 50	— —
Charlestown	2 10	— —	Providence	2 10	— —
Chelsea	2 12	— —	Provincetown	1 90	— —
Commercial Point	3 00	— —	Poughkeepsie, & t'g	1 60	— —
Davenport	2 00	— —	Port Chester	1 60	— —
Delaware City	— 80	— —	Plymouth	2 25	— —
Dighton	2 00	— —	Richmond	2 00	— —
East Greenwich	1 80	— —	Rockland	2 30	— —
Fall River	2 00	— —	Roxbury	2 25	— —
Fort Monroe	1 60	— —	Saugus	2 50	— —
Fredericksburg	—	— —	Sing Sing	1 60	— —
Georgetown	1 50	— —	St. Johns (in gold)	2 00	— —
Gloucester	2 30	— —	Salem	2 50	— —
Santown and tow	....	— —	Savannah, Ga	2 25	— —
Lynn and dis	2 80	— —	Stonington	2 25	— —
Milton	2 50	— —	Washington, D. C.	1 50	— —
Malden	2 50	— —	Weymouth't'g&pil'g	2 00	— —
Mobile	5 10	— —	West Point & tow	1 70	— —
Neponsett	0 00	— —	Wilmington	1 00	— —
New Bedford	2 00	— —	Winterport	2 00	— —

From Newburgh.

Stamford	$1 35@	..	Greenbush	$ 55@	..
Norwalk	1 25	..	Coeymans	50	..
Bridgeport	1 35	..	Coxsackie	45	..
New Haven	1 35	..	Stuyvesant	45	..
New London	1 45	..	Hudson	40	..
Norwich	1 60	..	Catskill	40	..
Mystic	1 45	..	Saugerties	40	..
Stonington	1 45	..	Barrytown	40	..
Bristol	1 55	..	Rhinebeck	30	..
Newport	1 55	..	Poughkeepsie	25	..
Fall River	1 55	..	Fishkill Landing	20	..
Providence	1 60	..	Cold Spring	30	..
Dighton	1 60	..	West Point	30	..
Warren	1 60	..	Peekskill	40	..
Pawtucket	1 75	..	Haverstraw	45	..
Boston	2 00	..	Sing Sing	50	..
Troy	60	..	Nyack	50	..
West Troy	60	..	Tarrytown	50	..
Albany	55	..	Yonkers	55	..
New York	70	..			

From Elizabethport.

New York	$ 70@	— —	Portland	2 00@	— —
Fall River	1 50	— —	Newburyport	2 10	— —
Newport	1 50	— —	New London	1 30	— —
Boston	2 00	— —	Pawtucket	1 50	— —
Norwich	1 25	— —	Taunton	1 40	— —
Providence	1 50	— —	New Haven	1 20	— —
Norwalk	1 20	— —	Portsmouth	2 00	— —
Middletown	1 50	— —	New Bedford	1 50	— —
Hudson	1 00	— —	Bridgeport	1 20	— —
Lynn	—	— —	Hartford	1 75	— —
Salem	2 00	— —	Albany	1 00	— —

From Baltimore.

To Philadelphia	$1 75@	— —	Boston	3 25@	— —
New York	2 50	— —			
do by Canal	2 75	— —			

From Georgetown or Alexandria.

To Philadelphia	$2 50	— —	Boston	3 25	3 50
New York	2 25	2 50			

Foreign Freights.

Sydney to N. Y	$4 50
Lingan	4 50
Cow Bay	4 50
Glace Bay	4 50

Schuylkill Coal Trade by Railroad and Canal,

For the week ending Thursday, November 15th, 1866:

	RAILROAD.	CANAL.
From St. Clair	23,346	.....
Port Carbon	8,046	9,269 00
Pottsville	164	833 00
Schuylkill Haven	23,787	22,750 00
Auburn	4,167	.....
Port Clinton	14,186	1,021 00
Total for week	73,686	33,904 00
Previously this year	3,237,231	1,164,949 00
Total this year	3,237,231	1,198,853 00
To same time last year	2,682,749	907,039 00
Increase	628,168	291,814 00

Little Schuylkill Coal Trade to Saturday, Nov. 10.

	Co.'s Mines. Tons.	Railroad. Tons.
From December 1st, 1865	122,041	240,027
Same time last year	86,807	198,106
Increase	35,234	41,410
East Mahanoy R. R.		346,404
Last year		357,919
Decrease		11,514
Increase on Railroads		29,896

Lehigh Coal Trade, for Week Ending Saturday, November 10.

OPERATORS.	RAILROADS. Week.	RAILROADS. Total.	CANAL. Week.	CANAL. Total.
Ashburton Coal Company	....	757	....	163
Audenreid	114	14,731	452	12,344
Baltimore Coal Company	....	....	456	11,546
Buck Mountain	1,216	52,700	720	22,301
Central Coal Company	....	....	....	....
Coleraine	85	31,500	905	22,498
Council Ridge	1,955	87,297	....	....
Coxe Bro. & Co	518	16,408	543	5,499
Connery, John	....	....	....	....
Coal Run Coal Company	....	155	....	....
Delano	933	25,976	....	5,305
East Sugar Loaf	4,630	172,993	....	....
Ebervale Coal Company	1,473	52,189	1,170	24,103
Franklin Coal Company	476	18,062	283	11,027
Ger Pa Coal Company	227	45,164	483	24,679
Glendon Coal Company	163	23,106	1,278	5,428
Germania Company	....	8,620	447	9,607
Hazleton	5,339	195,037	2,912	71,656
Harleigh	1,038	46,083	722	15,259
Highland Coal Company	....	....	....	....
Honey Brook Coal Company	3,637	118,565	1,663	28,530
Hull & Co., Thomas	....	....	986	12,884
Jeddo (G. B. M. & Co.)	2,495	131,542	1,847	51,709
Knickerbocker	78	22,520	191	9,472
Laubach, J. & Co	....	....	160	1,287
Lehigh Zinc Company	....	7,464	....	....
Lehigh & Susquehannah	....	16,021	....	11,555
Lehigh Coal & Navigation Comp'y	....	....	13,725	370,497
Mahanoy	....	10,935	....	....
Mount Pleasant	117	19,634	....	5,761
Meadow, B. (D. W.)	....	1,983	....	....
McNeal Company	955	52,034	1,130	20,488
Meyers, H.	....	8,582	....	....
Mount Etna Coal Company	....	....	....	4,327
New Boston C. Co.	....	5	....	....
New Port C. Co.	183	776	96	859
New York & Lehigh	2,596	63,649	....	....
New Jersey	62	3,509	192	5,301
North Mahanoy	....	....	....	8,415
Packer, Skeer & Co	....	....	2,209	79,507
Patterson, W. T.	....	....	....	....
Parish & Thomas	592	19,595	....	408
Primrose Coal	....	....	91	671
Rathburn, Stearns & Co	252	35,701	....	....
Reber, J. B. & Co	21	6,783	....	....
Sharpe, Wess & Co	....	....	1,057	27,648
Stout Coal Company	776	42,407	958	16,432
Spring Mountain	3,203	127,880	....	5,780
Silliman	419	42,636	....	....
Shamokin Coal Company	....	2,202	....	....
Thomas Coal Co	....	....	586	1,899
Trenton Coal Company	....	258	....	379
Union	59	1,059	296	3,148
Wilkesbarre	849	54,085	1,398	41,429
Woodside Company	....	....	....	....
Warrior Run	49	6,686	90	6,310
Wyoming	329	3,082	....	1,358
Walter Bro. & Co	....	....	....	12,755
Other shippers	532	11,541	327	10,804
Total	36,824	1,636,614	37,319	981,035
Corresponding week last year	35,128	1,307,856	30,979	790,421
Increase	1,706	328,758	6,339	190,614
Decrease				

Cumberland Coal Trade.

Statement of Coal shipments over the Baltimore and Ohio Railroad for the week ending Nov. 10th:

	Tons.
From Eckhart R. R.	
Blaen-Avon Company	318 08
Spruce Hill	203 11
Cumberland Coal and Iron Company	23 11
From Cumberland and Pa. R. R.	
Consolidation Company	2,359 12
Borden Mining do	761 17
American do	962 02
Clifton do	29 14
	4,610 16
From George's Creek via. Piedmont.	Tons.
George's Creek Coal and Iron Company	1,702 01
Atlantic Company	436 16
Piedmont do	1,654 19
Swanton do	924 10
Central do	109 06
Barton do	1,150 04
Potomac do	1,043 14
George's Creek Mining Co	978 18
Franklin do	1,980 09
Hampshire do	2,594 08
Savage Mountain Co	11 04
Total	12,328 17
Gas Coal.	Tons.
From mines West of Piedmont	2,520.

Transportation since 1st of January.	Tons.	Cwt.
From Companies by Eckhart R. R.	40,914	04
From do C. & P. R. R.	116,703	02
From do via. Piedmont	496,232	17
From West of Piedmont. Gas Coal	47,820	00
Total	701,670	03

By Canal

For two weeks ending with Saturday, Nov. 10th, and for the season:

Companies.	Boats.	For Week: Tons.	For Season. Tons.
Borden Coal Co	9	1,661 08	37,211 00
Consolidation Co	6	668 19	11,689 14
American do	25	2,738 03	57,161 03
Central do	25	2,744 08	76,203 14
Cumb. C. & I. Co	10	1,078 07	43,560 05
New Hope do	—	.....	19,136 00
Hamp. & Balt. Co	12	1,529 02	30,384 04
Miscellaneous	9	972 11	22,286 03
Total	96	10,532 18	297,623 03

WEEKLY COAL TRADE CIRCULAR.

NEW YORK, NOV. 16, 1866.

The aspect of trade remains unaltered. Dullness prevails, and no improvement can now be reasonably looked for during the current business season. Choice Red Ash Coals, such as the Duncan, Lewis, Spohn and Diamond varieties, sell readily at $7 50, afloat, in New York, and are in active demand; whilst, on the other hand, the best varieties of White Ash, like Lehigh or Locust Mountain, are very dull of sale, and the prices are not maintained—a decline of at least 25c. per ton having occurred during the past week.

The truth is, more Coal has been produced this season than the market required—the result being that the trade is, in all its departments, in a very unsatisfactory condition. The shipping season of 1866 will be soon over, and no one in the Coal trade will regret its expiration. It is expected that labor and transportation will be more evenly adjusted to the altered condition of the Coal trade before another season commences. The Coal interest is too important to be permitted to languish and afford no remuneration to those engaged therein, and as the transportation companies this year have, by their concerted action, compelled the miner of Coal to bear all the burthen, whilst they have been doing a *profitable* business, it is to be expected that they will be necessitated another season to sustain their share of the burthen. "*Nous Verrons*?"

L. A. & CO.

SAN FRANCISCO STOCK MARKET.

Latest by Telegraph.

SAN FRANCISCO, NOV. 14.

Name.	Bid per foot.	Name.	Bid per foot.
Gould & Curry	400	Crown Point	850
Savage	1740	Yellow Jacket	725
Chollar-Potasi	200	Belcher	65
Ophir	75	Alpha	
Hale and Norcross	1800	Imperial per share	125
Cal. Steam Navigation Co	66	Cal. State Telegraph Co	31½

NEW YORK METAL MARKET.

(CORRECTED WEEKLY.)

COPPER—Detroit, ₱ lb., cash		29¾	
Portage Lake		29½	
Baltimore		29½	
Pig Chili			
Bolts		43	45
Braziers		43	
Sheathing		45	
Yellow metal		32	
IRON—Pig.....No. 1 Scotch, ₱ ton		53 00	55 00
No. 1 American		50 00	52 00
No. 2 "		47 00	
No. 2 Charcoal		43 00	44 00
Bar.....Swedish, ordinary sizes		96 00	105 00
Amer. and Eng refined		105 00	112 00
" " common		95 00	100 00
Rails, American currency (old)		51 00	51 50
" English currency (new)		78 00	
Horse shoe iron		145 00	
Rods 5-8@11-16rd. and sq		125 00	
Band		150 00	
Nail rods		122 50	132 50
Hoops		160 00	220 00
Sheets, Russian, ₱ lb		23	24
" English "		6¼	9
" American "			
Boiler Plates, English			
" American			
STEEL.....English, cast, (2d & 1st q) ₱ lb		18½	24
" Spring " "		11½	15
" Blister " "		12½	20
" Machinery "		14	16
" German, (2d & 1st q)		15½	17½
American Blister, Blk Dim'ds		11½	17
" Cast, Tool "		19	
" Spring "		12	15
" Machinery "		15	
" American German,		13	14
LEAD.....American			
German		10	10½
Spanish		10	10½
English			
Bar		10 75	
Pipe and sheet		11 25	
TIN.....Banca, gold		23	23¼
Straits		21	21¼
English		21½	
TIN PLATES.....IC charcoal, ₱ box		9 50	10 25
IC Coke		7 00	9 25
Charcoal Terne		9 50	10 25
QUICKSILVER			80
SPELTER.....Lehigh, per lb., currency		11	
Foreign " gold		9¼	10
ZINC.....Mussulman & Amer		13	13½
SOLDER.....No. 1		24	
No. 2		22	
QUICKSILVER			

Patent Claims.

Interesting to Miners, Millmen, Metallurgists, Oil-Men and Others.

The following claims have recently been issued from the United States Patent Office:

59,349.—VAT FOR EVAPORATING SALT-WATER.—John F. Boynton, Syracuse, N. Y.:

1st, The central boards, as specified.

2d, The rollers with multiplied surfaces.

3d, The dark color of the rollers for the absorption of heat, as herein specified.

4th, The arms with fans upon the rollers.

5th, The arrangement which causes the water by its gravity to work its own evaporation, substantially as described.

59,364.—PUMP.—Albert Conant and Israel F. Brown, New London, Conn.:

We claim, 1st, The wings, J, of the single taper stem, G, in combination with the loose valve, B, arranged and operating in the manner and for the purpose herein described.

2d, The tilting arm, E, in combination with the cap, C, of the loose valve, B, arranged and operating in the manner and for the purpose herein specified.

59,400.—STEAM PUMP.—John Jordon, Wyandotte, Kan.:

I claim the arrangement of the steam-pipe, A, cylinder, B, partition plate, D, having opening, E, sliding hollow float, H, stem, F, tappets, K, K2, spring, T, valve, J, feed-pipe, L, discharge pipe, N, and pipe, P, in the manner described and for the purpose specified.

59,425.—HAMMER FOR FORGING BLOOMS.—G. B. Manley, Cogan Station, Pa.:

I claim, 1st, The combination of the hammers, E, with the helves, D, and arms, D', arranged with the cone-shaft, C, whereby the hammers fall alternately on a two-faced anvil, A, and operating substantially as described for the purpose specified.

2d, The shouldered hammers, E, operating with the spring arms, I, lever, L, slotted-plate, M, rod, O, lever, Q, and forked-bracket, P, constructed and arranged substantially as described for the purpose specified.

59,439.—DAMPER REGULATOR FOR BOILER FURNACES.—James F. Neall and William Myers, Philadelphia, Pa.:

We claim the piston, A, and cylinder, B, when the same are constructed, arranged, and combined to be operated together, by the pressure of steam in a boiler and the counter pressure of movable weights applied directly upon the said cylinder, substantially as described and set forth, for the purpose specified.

58,463.—QUARTZ MILL.—H. H. Scoville, P. W. Gates, and D. R. Fraser, Chicago, Ill.:

We claim, 1st, The corrugated cylinder, A, constructed so as to revolve and elevate the quartz or other substances, in combination with one or more hollow cylinders, such as E and F, which are corrugated and perforated circumferentially so as to admit and conduct the quartz or other substances after they have been elevated into and out of the chambers of such cylinders as E and F, having an opening in each end, so that the quartz may be fed in and discharged continuously, all substantially as set forth.

2d, A corrugated cylinder, E or F, perforated entirely through its shell, substantially as and for the purpose described.

3d, The construction and arrangement of the cylinders, A, E, F, so that the substances to be operated upon are free to pass through the circumferences of the cylinders, E and F, and are subjected to a grinding and crushing action between the said cylinders, A, E and F, substantially as described.

4th, Constructing the corrugated lining of the cylinder, A, which has axial supports with cups or channels, c, substantially as and for the purpose described.

59,464.—MACHINE FOR UPSETTING AND FORMING ARTICLES FROM METALLIC RODS OR BARS.—Moses Seward, New Haven, Conn.:

I claim the holding dies, c and c', with upsetting dies, e and e', or their equivalents, when arranged and combined so as to upset the metal placed therein in two places at one time, and operating substantially as herein set forth.

59,509.—APPARATUS FOR SEPARATING METALS FROM ORES.—Stephen R. Krom, assignor to Louis F. Therasson, John A. Bryan, James M. Blackwell, and Apollos R. Wetmore, New York City.:

I claim, 1st, Operating the feed-valve, G, by means of the double links, J, J', and its connections, substantially as and for the purpose herein specified.

2d, Opening and closing the joint between the fixed ring, a, and the upper face of the travelling ring, C, substantially as and for the purpose herein specified.

3d, The sharp edge of the ring, C, when arranged and operated substantially as and for the purpose herein specified.

4th, Varying the depth of the stratum retained on the perforated bed, D, by the employment of the movable rings, C2, arranged relatively to the bed, D, and to the shoulder, substantially as and for the purpose herein specified.

5th, Mounting the bellows, G', in close proximity to the bed, D, substantially as and for the purpose herein specified.

6th, The carriage, B, and crank, M, in combination with the bed, D, and ring, C, and with a suitable intermittent suction device, substantially as and for the purpose herein specified.

59,510.—APPARATUS FOR SEPARATING METALS FROM ORES.—Stephen R. Krom, assignor to Louis F. Therasson, John A. Bryan, James M. Blackwell, and Apollos R. Wetmore, New York City:

I claim, 1st, Producing a variable aperture through which the blast produced by the bellows may be discharged so as to reduce the action through the screw, D, as required, substantially in the manner and for the purpose herein set forth.

2d, Contracting a portion, a3, of the casing between the bed, D, and the bellows, E, substantially as and for the purpose herein specified.

3d, The inclined rods, F1, F2, cranks, G1, G2, and connecting gear, G, in combination with a bellows and adapted to be used for separating ores and analogous uses, substantially as herein specified.

4th, Mounting the supporting links, B, B, on centers one side and not under the trunions, c, of the ring, C, substantially as and for the purpose herein specified.

5th, The rotating pan or vessel, R, arranged to operate in combination with the scraper, a, and the bed, D, and ring, C, substantially in the manner and for the purpose herein set forth.

Special Scientific Brevities.

☞ The spores of the equisetaceæ, or horse-tails, are now among the most interesting of microscopic objects. If a ripe head of a fertile horse-tail is gently shaken over a sheet of white paper, a number of minute green bodies will be seen to fall. These should be transferred to a glass slide and examined with a magnifying power of fifty or sixty linear, when it will be perceived that each spore is provided with four filaments expanded at the ends. If quite fresh, these filaments will probably be in motion. By breathing upon them they contract closer round the spores; and, if watched for a few seconds, they will be seen to dart out again vigorously, as the moisture which induced their contraction evaporates.

☞ Lieut. E. L. Berthoud contributes an article to the *Colorado Mining Journal*, in which he states the following altitudes of passes, etc., in Colorado territory: Argentine Pass, above the sea, 13,000 feet; Jones, 12,200; Berthoud, 10,014; Pass between the South Park and Breckinridge, 11,000; Boulder Pass, (estimated,) 11,700; Denver, 4,798; Golden City, 5,242; Forks of North and South Clear Creek, 6,466; Idaho, 7,122; Fall River, 7,510; Downieville Bar, 7,000; South Bar, road to Georgetown, 7,877; Georgetown, 8,104; Foot of Berthoud Pass, 8,188; Middle Park, First Prairie, 8,800; Middle Park, near Blue River, 6,700.

☞ Worm-eaten wood may be saved from further ravages by fumigating it with benzine, whereby the worm is destroyed. Another way is to saturate the wood with a strong solution of corrosive sublimate—a process which may be advantageously employed to protect carvings in wood. But as sublimate destroys its color, it will be necessary to restore the latter by ammonia, and then by a very dilute solution of hydro-chloric acid. The holes made by the worm may then be injected with gum and gelatine; and a varnish of resin, dissolved in spirits of wine, should afterward be applied to the surface.

☞ The Lidner gun, which has just been tried in the presence of the Emperor of Austria and a special commission, has given the following results: In the space of five minutes a single gun fired forty shots, which all perforated an oak plank an inch and a half thick, at a distance of two hundred paces. An improvement on the Prussian musket has therefore been obtained; for the latter, at two or three hundred yards, only inflicted wounds which were cured in three weeks.

☞ There was recently described in a paper read before the Royal Society of London a microscope which exceeds what had been considered the utmost attainable limit of perfection in this instrument. It magnifies three thousand diameters with its lowest eye piece, and fifteen diameters with its highest, so that an object is made to appear one billion, five hundred and seventy-five million times larger than it really is.

☞ An old English patent has expired, whereby, by the use of combs and brushes made of different metals, electric currents are created, the scalp is stimulated, and a healty action ensues, restoring the hair to its original color, and generally improving its appearance. The same effect, it was claimed, would be produced by having these combs and brushes connected, while in use, with electric batteries.

☞ The Chancellor of the University of Mississippi, for which institution the papers of that section claim that this mammoth telescope was made, is trying to obtain it from the University at Chicago. It is not likely that he will succeed.

☞ The density of the moon is five-ninths less than that of the earth, while the second satellite of Jupiter appears, if we may place sufficient dependence on the determinations of magnitude and of mass, to be even actually denser than the great planet around which it revolves.

☞ Dr. Wollasron obtained very fine platinum wire by inserting a platinum wire in a small cylinder of silver, then drawing them both through a draw plate, after which the silver was dissolved, leaving the platinum wire as fine as a spider's web.

☞ Mr. Graham observes: "It is believed that metallic pores, and indeed all fine pores, are more accessible to liquids than to gases."

☞ Professor Agassiz is continuing his lectures on the Amazon and Brazil at the Lowell Institute in Boston.

Mineral and other On-dits.

☞ It is said that the increased quantity of coal thrown into market this year over the supply of 1864, which was the largest quantity sent to market in a single year in the history of the trade, is upwards of 2,700,000 tons.

☞ An ordinary blast-furnace making white iron requires nearly 7,500 cubic feet of air per minute, or it consumes 2,318 tons of our atmosphere in every week.

☞ Marble has been discovered near Zanesville, Ohio. The vein is thirty feet thick, and is said to rival Italian marble in its fineness and delicacy.

All Sorts.

☞ "Every good act," said Irving, "is charity. Your smiling in your brother's face is charity; an exhortation of your fellow man to virtuous deeds is equal to alms-giving; your putting a wanderer in the right road is charity; your assisting the blind is charity; your giving water to the thirsty is charity; A man's true wealth hereafter is the good he does in this world to his fellow-men. When he dies, people will say, 'What property has he left behind him?' But the angels who examine him in the grave will ask, 'What good deeds hast thou sent before thee?'"

☞ One of Brigham Young's daughters has "gone back" on polygamy. Her father pressed her to give herself to a wealthy friend. The young woman, whose name is Fannie, replied that she didn't have the least objection to marry the man, provided she was allowed as many husbands as he had wives.

☞ The officers of nearly all the large British colonies in America and Australia have published official statements concerning the large demand for skilled and unskilled labor. But all efforts to turn away the tide of British emigration from the United States are in vain.

☞ Baron Rothschild once complained to Lord Brougham of the hardsh p of not being allowed to take his seat in Parliament. "You know," said he, "I was the choice of the people." To which the ex-Chancellor, with his usual causticity, replied, "So was Barrabbas."

☞ A party recently ascended Mt. Hood, Oregon, to its very summit. They ascertained its height to be 17,600 feet, and also, to a certainty, that it is a volcano. If this measurement be correct, Mt. Hood is the highest peak in the United States.

☞ The cellars and underground offices of the Pompeian Palace, in the Avenue Montaigne, are at present flooded by the Seine; and Roman amphoræ and household utensils are submerged in several feet of water.

☞ A new daily journal has appeared in Vienna, price one-fifth of a penny. It is a government organ, intended for distribution among the people, is printed on good paper, and contains eight quarto pages.

☞ Lager bier, it seems, has become what may be called a "naturalized" American beverage, for the amount manufactured in this country is said to exceed the amount made in Europe.

☞ It is said that an editor's life is like the Book of Revelations, because full of "types and shadows, and a mighty voice like the sound of many waters is ever saying to him, "Write."

☞ When a fond maternal parent asked that stutter ing wag, Chas. Lamb, "And how do you like babies, Mr. Lamb?" he promtly responded, "b-b-boiled, madam!"

☞ "Give the devil his due reads well enuff in a proverb, but, mi friend, what will become uv me and you if this arrangement iz carried out."

☞ There is a man in Connecticut who has such a hatred to every thing appertaining to a monarchy that he won't wear a crown on his hat.

☞ The engines of the large ocean steamers make about 200,000 turns in crossing the Atlantic between Liverpool and New York.

SPECIAL NOTICES.

☞ The Pittsburgh *Mining and Manufacturing Journal* comes to us this week remodelled and much improved in every respect. Mr. Blake, its editor, is a man of decided ability and experience, and we wish him and his excellent paper success equal to his just expectations.

☞ The *Union Vedette*, published in Salt Lake City, Utah, has changed hands. Whether the recent cowardly assault made by Mormons upon its former editor and proprietor occasioned it, we cannot say, but it is to be hoped that it will retain all its former vigor of style. Good luck to it!

☞ The *Stockholder*—a journal of finance, railroad stocks, etc.—published in New York City, has just entered upon a new volume. Under the editorial control of Samuel P. Diasmore we hope to see it constantly enlarge its sphere of usefulness.

☞ The special attention of our readers is directed to the long list of testimonials endorsing the famous Harrison Boiler, to be found on our last page.

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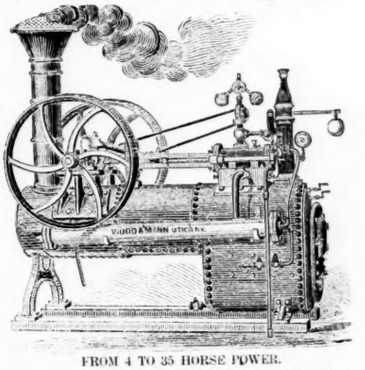

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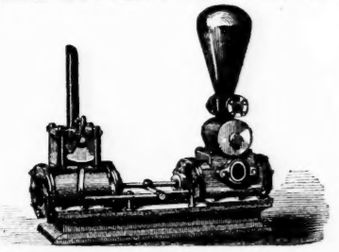

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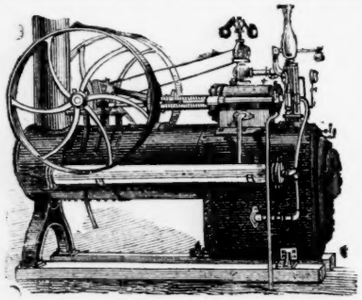

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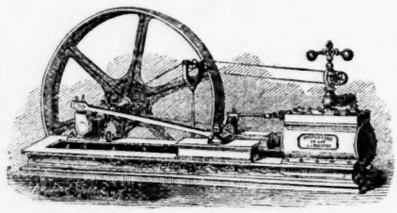

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Yours, very respectfully, JAMES B. RODGERS.

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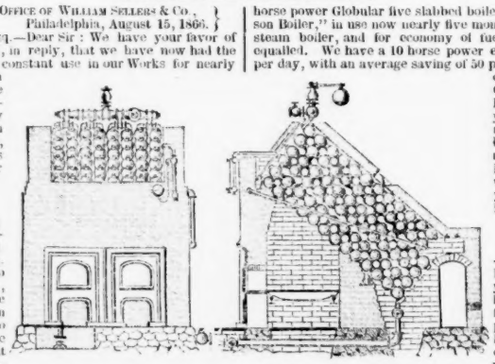

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Manufacturers of Edge Tools, Hammers, etc., Armat st.
PHILADELPHIA, August 10, 1866.

JOSEPH HARRISON, JR., Esq.—Dear Sir: Having charge (as administrators) of the Worsted Mills of the late Mr. Samuel Yewdall, at which the recent terrible explosion of a wrought iron boiler occurred, we have decided to avoid a recurrence of such a calamity in the future; and believing your boiler to be the only one absolutely free from danger of explosion, and at the same time equal, if not superior, as a generator of steam, and in economy of fuel, to any boiler now in use. You will please accept our order to furnish us for said Mills Two Fifty Horse Power Boilers, to be used separately or in conjunction. By complying quickly with the above order, you will very much oblige yours truly,

JAMES HUNTER, }
N. R. SUPLEE, } Administrators.
ALPINE MILLS, HOWARDS,
Centre Co., Pa., September 8, 1866.

JOSEPH HARRISON, JR., Esq.—Dear Sir: It gives me great pleasure to be able to inform you that your boiler comes up to the most sanguine expectations; in fact, all that you can possibly claim for it—being economical, safe, and a speedy generator of steam. Since they were first put up in the spring, (which, by the way, was done without having a mechanic on the ground, except the mason,) according to your plans, sent gratis, the first leak, trouble or delay has yet to make its appearance. Steam is kept up from 75 to 90 pounds for William H. Kings, 1015 Sansom street. 24 horse power oscillating engine, with saw dust, there being but a 25 feet iron stack of 2 feet diameter. I am, dear sir, very respectfully, PERCY H. WHITE, Agent.

SUPERINTENDENT'S OFFICE, CAMDEN & ATLANTIC RAILROAD,
CAMDEN, N. J., August 21, 1866.

JOSEPH HARRISON, JR.—Dear Sir: You ask our opinion of the safety, economy in fuel, and general merit of the "Harrison Boiler we have in use. I deem it a safe boiler. From its construction I do not think it possible that a disastrous explosion can occur. It is a rapid generator of steam, and requires less fuel than any boiler that has come under my notice. * * *

Very respectfully, yours,
C. W. N. CUSTIS,
Superintendent.

ATLANTIC MILLS, ELLWOOD,
Atlantic Co., N. J., August 13, 1866.

MR. JOSEPH HARRISON, JR.—Dear Sir: We have had one of your Six Slab Boilers in use in our Paper Mill for five months. We consider it unequalled by any make of boiler now in use. With less than one-half the fuel it produces more and drier steam than any boiler we have ever used. It is simple, easily managed, and perfectly safe. Our boiler bleaches the stock for and dries one ton of paper daily, with one cord of pine wood per day. Very truly, McNEIL, IRVING & RICH.

NEW YORK, August 15, 1866.

MR. JOSEPH HARRISON, JR., Philadelphia, Pa.—Dear Sir: We take great pleasure in informing you that the boiler purchased from you, which we have had in use about five months, has given the best satisfaction, and has borne out everything you claimed for it. As a steam generator, we have never seen anything equal to it. We consider the saving of fuel as being very great, compared to ordinary boilers. If we had need of more steam capacity, we should certainly use your boiler in preference to any other. You are at liberty to use this if it will be of any service to you.

Yours truly, UNITED STATES WATCH CO.,
F. A. GILES, President.

WORCESTER, Mass., September 3, 1866.

After an experience of twenty years in running the most approved boilers and engines in use, I regard the Harrison Boiler, made by Joseph Harrison, Jr., of Philadelphia, the most economical for fuel, safest, quickest working, and one that will give the steadiest motion to the engine with the least attention.

FREDERICK EDWARDS, Engineer,
Earle Stove Co., Worcester, Mass.

WORCESTER, Mass., 9th mo., 6th, 1866.

JOSEPH HARRISON—Dear Sir: We received your letter, and will say we are highly gratified with Boilers. The one we are using at the Earle Stove Co. has been in operation since the first of the year in perfect order. We have just got in operation the last sent, at our Card Factory, and are running it beside a Tubular of about the same capacity; so far we find a saving of about one-half by actual measurement. Truly yours, T. K. EARLE & CO.

OFFICE OF THE SALEM COAL COMPANY,
PHILA., Aug. 16, 1866.

JOS. HARRISON, JR., Esq.—Dear Sir: After having your cast iron Boiler in use at the Colliery of this Company for more than a year, it gives me pleasure to state that its operation has been very satisfactory. In the important point of economy of fuel, it is reported to be superior to any other Boiler we have in use, and, as regards its safety from destructive explosions, it certainly has no equal among all the various forms of boilers that have come under my notice.

Very truly, JOHN C. CRESSON, Prest.

PENNA. HOSPITAL FOR THE INSANE,
PHILADELPHIA, August 11, 1866.

DEAR SIR—In my annual report of this institution for 1865, I stated my high estimate of your Boiler, for safety, economy and general efficiency. Additional experience has tended to confirm all that I then said, and if we required additional Boilers for any purpose I should certainly recommend yours.

Very truly yours, THOS. S. KIRKBRIDE.

Joseph Harrison, Jr., Esq., Philadelphia.

ROCK ISLAND MANUFACTURING COMPANY,
CLARLOTTE, N. C., August 23, 1866.

MR. JOSEPH HARRISON, JR.—Dear Sir: Our experience with your Boiler warrants us in bearing testimony to its superiority over any other with which we are acquainted. Ours is a 100 horse power boiler, and drives six sets of cotton machinery and furnishes steam for our dyeing operations and for heating the mill. Our fuel is wood, and we use three cords per day to do all work, whereas we formerly used that quantity under Cylinder Boilers, merely to furnish steam for our dye-house and heating the mill. Our experience is that in fifteen minutes after applying the fire in the morning, we have on a full head of steam and our machinery at work. We have had it in use only a few months, it is true, but we presume long enough to test its adaptation to our fuel and our work, and have found it in every respect to come up to your representations. Our Boiler was set up and put to work by a man who never had seen it done, without the slightest difficulty. Your Boiler commends itself for economy in fuel, and its merits need only be known to render it universally popular.

Very respectfully yours, JOHN A. YOUNG, President.

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C. F. CHANDLER, Ph. D., Analytical and Applied Chemistry and Geology.
JOHN TORRY, M.D., LL.D., Botany.
CHARLES A. JOY, Ph. D., General Chemistry.
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